

**REPORT ON
RELEASE ABATEMENT MEASURE (RAM) PLAN
FORMER ENERGY INTERNATIONAL, INC. PARCEL
CYPHER STREET
SOUTH BOSTON, MASSACHUSETTS
RELEASE TRACKING NUMBER (RTN) 3-29395**

by

**Haley & Aldrich, Inc.
Boston, Massachusetts**

for

**Massachusetts Department of Environmental Protection
Wilmington, Massachusetts**

**File No. 06318-540
June 2013**

Haley & Aldrich, Inc.
465 Medford St.
Suite 2200
Boston, MA 02129

Tel: 617.886.7400
Fax: 617.886.7600
HaleyAldrich.com



13 June 2013
File No. 06318-540

Massachusetts Department of Environmental Protection
Northeast Regional Office
205B Lowell Street
Wilmington, Massachusetts 01887

Attention: Bureau of Waste Site Cleanup

Subject: Release Abatement Measure (RAM) Plan
Former Energy International, Inc. Parcel
Cypher Street
South Boston, Massachusetts
Release Tracking Number (RTN) 3-29395

Ladies and Gentlemen:

On behalf of our client, the McCourt-Broderick Limited Partnership, c/o The McCourt Company, Inc., Haley & Aldrich, Inc. (Haley & Aldrich) is pleased to submit this Release Abatement Measure (RAM) Plan for the former Energy International, Inc. Parcel 06-2771-100 in Boston, Massachusetts. The above-referenced property is also listed as a Disposal Site ("Site") under the Massachusetts Contingency Plan (MCP). This RAM Plan has been prepared in accordance with 310 CMR 40.0444 and Massachusetts Department of Environmental Protection (MassDEP) Policy # WSC-00-425, and presents procedures to be followed for management of excavated soil and potentially groundwater associated with proposed remediation activities at the Site.

Based on concentrations of polychlorinated biphenyls (PCBs) detected in soils, and due to a lack of certainty regarding the date of the release and the original concentration of the release of PCBs, a portion of the Site is subject to regulation under the Toxic Substances Control Act (TSCA). Accordingly, a Self-Implementing Cleanup and Disposal Plan (Self-Implementing Plan) was submitted to the US Environmental Protection Agency (EPA) on 31 October 2012. The EPA provided Notification of PCB Cleanup and Disposal Approval under 40 CFR 761.61(a)(3) and (c) in a letter dated 31 March 2013. A copy of the EPA approval letter is provided in Appendix A.

Several subsurface exploration and chemical testing programs have been conducted at the Site by Haley & Aldrich and others to characterize the nature and extent of contamination and to classify soils for potential off-site disposition. In summary, available test data indicate concentrations of polycyclic aromatic hydrocarbons (PAHs), petroleum hydrocarbons, metals, and PCBs in soil (urban fill) material exceed RCS-1 Reportable Concentrations at this Site. Chemical analysis of groundwater samples indicated no RCGW-2 exceedances detected in groundwater samples and as a result, groundwater is not considered to be impacted. A portion of the subject property was remediated prior to the 1992 construction of the adjacent Boston Haul Road (now South Boston Bypass Road). This soil remediation

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was performed under the Central Artery (I-93/tunnel (I-90) project on behalf of the Massachusetts Highway Department in preparation of South Boston Bypass Road.

The original RAM Transmittal Form BWSC106 is being submitted concurrently with this RAM Plan via eDEP, a copy of which is provided in Appendix B. Public notice of the proposed RAM implementation has been provided to both the City of Boston Board of Health and the City of Boston Mayor's office concurrently with this RAM Plan to satisfy the notification requirements pursuant to 310 CMR 40.1403(3)(d)(2). Copies of these notices are included in Appendix B.

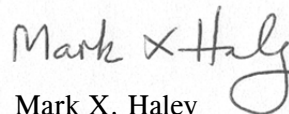
Since this RAM Plan does not propose the off-site disposition of more than 1,500 cubic yards (cy) of excavated soil (Remediation Waste), the party undertaking this response action does not need to provide Certification of Financial Assurance, in accordance with 310 CMR 40.0442(5).

If you have any questions or require additional information, please do not hesitate to contact the undersigned.

Sincerely yours,
HALEY & ALDRICH, INC.



Cole E. Worthy III, LSP
Vice President



Mark X. Haley
Senior Vice President

Enclosures

c: McCourt-Broderick Limited Partnership c/o The McCourt Company, Inc.: Attn: Austin Regolino
Davis Malm & D'Agostine; Attn: William Griffin and Paul Feldman

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1. INTRODUCTION

1.1 Site Conditions and Surrounding Receptors

The Former Energy International, Inc. property is located in South Boston, Massachusetts, at the intersection of South Boston Bypass Road and Cypher Street (Figure 1). The subject property is also a Disposal Site pursuant to the Massachusetts Contingency Plan (MCP), 310 CMR 40.0000. MassDEP has assigned Release Tracking Number (RTN) 3-29395 to the Disposal Site (hereinafter referred to as the "Site"). Haley & Aldrich submitted an MCP Phase I Initial Site Investigation Report, Tier II Classification Submittal and Conceptual Phase II Scope of Work for the Site to MassDEP on 25 July 2011.

The Site consists of one parcel totaling approximately 18,000 ft of land and is referenced as City of Boston Tax Assessor Parcel Number 06-2771-100. The limits of the Site are indicated as shown on Figure 2. The Site is located in an urban area of South Boston and is generally covered by gravel, broken concrete, abandoned railroad tracks and other miscellaneous debris, and/or vegetation. No buildings currently exist on the Site, with the exception of a small signal cabinet structure associated with the inactive rail service. The Site is relatively level with elevations ranging from approximately El. 15 to El. 17 Boston City Base (BCB).

The Site is located in an urban setting in a mixed commercial, industrial area of South Boston. The Site is bounded by the South Boston Bypass Road to the northwest, Cypher Street to the northeast, B Street to the southeast, and a portion of West 1st Street to the southwest. Some portion of the Site is paved with the remainder unpaved. The Universal Transverse Mercator (UTM) Coordinates for the Site are UTM Northing: 4689905 and Easting: 330990 Zone 19.

1.1.1 Human Receptors

The Site is located in an urban setting in Boston with a mixture of industrial and commercial properties. Review of the Boston Redevelopment Authority (BRA) Zoning District Map 4 -South Boston, dated October 2010 indicates that the St. Vincent residential neighborhood district is located within 500 ft of the Site. The water body closest to the Site is the Fort Point Channel, which is located more than 500 ft from the Site. There are no surface water bodies or wetlands present at the Site.

According to the MCP (310 CMR 40.0006), institutions include publicly or privately owned hospitals, health care facilities, orphanages, nursing homes, convalescent homes, educational facilities, or correction facilities, where such facilities provide overnight housing, whether wholly or partially. No institutions are located within 500 ft of the Site.

For the near future foreseeable conditions (i.e. during soil excavation activities), potential human receptors include construction workers, trespassers, authorized visitors, nearby residents, and passers-by. During RAM activities, access to the soil excavation areas at the Site will be restricted by perimeter fencing and/or jersey barriers, which will be secured during non-working hours.

1.1.2 Ecological Receptors

The Site is located in an urban and developed area of Boston. No ecological receptors have been identified at the Site. There are no surface water bodies on the Site and the closest surface water body, the Fort Point Channel, is located approximately one-quarter mile northwest.

The Site is not located within a Zone II of a public groundwater supply well, or in an Interim Wellhead Protection Area (IWPA), or within a Zone II aquifer protection area. There are no private drinking water supplies within 500 ft of the Site and an Alternative Public Water Supply is available. A review of Geographic Information Services (GIS) data provided by MassGIS indicates there are no proximal (less than 500 ft) Estimated Habitats of Rare Wetlands Wildlife, Certified Vernal Pools, Priority Habitats of Rare Species, or Areas of Critical Environmental Concern (ACECs). There are no undeveloped areas located on the Site property.

1.2 Historical Site Usage

Based on a review of available aerial photographs, Sanborn Maps and previous reports prepared for the subject property and surrounding properties, historically, the property was utilized as a rail yard by the New York, New Haven, and Hartford Railroad (NHRR), prior to the purchase of the NHRR by Penn Central railroad. Review of Sanborn Maps dated from the period 1888 through 1988 indicated that the property was occupied by numerous railroad tracks (Appendix B). In approximately 1980, Broderick Properties, Inc. (a subsidiary of McCourt) entered into a Purchase and Sale Agreement to buy the subject property from Penn Central Corp. FPC Properties, Inc. (a subsidiary of Cabot, Cabot & Forbes) subsequently purchased the subject property from Penn Central Corp. After some litigation, in June 1987, the subject property was awarded by the Court to Energy International, Inc. (a subsidiary of McCourt).

The former Energy International, Inc. property (City of Boston Tax Assessor Parcel Number 06-2771-100) is one of multiple parcels located within the boundaries of the Boston Junk/SAK Recycling Corporation (also known as Former Boston Junk), 14 Louis Street, Boston, MA (RTN 3-0580). The Boston Junk/SAK disposal site, RTN 3-0580 was reported to MassDEP in the early 1980s due to a release of polychlorinated biphenyls (PCBs) from transformers formerly stored at the property. In 1999 and 2000 the Boston Redevelopment Authority and Massachusetts Convention Center Authority (BRA/MCCA) acquired the Boston Junk/SAK Recycling properties (Parcels 0602772002, 0602773001, and 0602773002), including a portion of the Energy International properties (Parcel 0602771000), which is the subject property. The (BRA/MCCA) acquired most of the properties associated with Boston Junk/SAK Recycling Corporation through eminent domain and subsequently initiated cleanup response actions on these properties to make the site suitable for unrestricted human use. Oil and hazardous material (OHM) contaminated soil was excavated and removed for off-site disposal.

Review of available reports and Sanborn Maps indicate that Boston Junk/SAK Recycling Corporation activities were primarily limited to the area east of New Cypher Street and it is not known how much activity associated with the Boston Junk/SAK Recycling Corporation occurred at the subject property. Sanborn Maps do not indicate any buildings to have existed on the subject property.

Boston Junk/SAK records indicated that Boston Junk commonly purchased large numbers of electrical items including transformers, capacitors, wire, cable, and lead coated cable, from Boston Edison Company. Firefighting activities are believed to have also contributed to the PCB and associated total petroleum hydrocarbon (TPH) and metals migration across the Boston Junk/SAK disposal site.

Review of the MassDEP database listing for the Boston Junk/SAK disposal site indicates that the Boston Junk/SAK disposal site is classified as a Tier 1A site under 310 CMR 40.0000 of the Massachusetts Contingency Plan (MCP) indicating that any remedial/intrusive work would require approval from the MassDEP. Review of the MassDEP database and reports prepared by others indicates that the Boston Junk/SAK disposal site is also regulated under the United States Environmental Protection Agency's (EPA's) Toxic Substance Control Act (TSCA).

The Boston Junk/SAK disposal site was the subject of litigation in the *Commonwealth of Massachusetts, Boston Redevelopment Authority and the Massachusetts Convention Center Authority, Plaintiffs v. Boston Edison Company, SAK Recycling Corporation, Fiore Construction, Co., Inc and Walter Fiore Defendants*, Mass Sup. Ct. Civ. Action No. 96-0673A. Haley & Aldrich previously reviewed the Final Judgment in Civil Action Number 96-0673A and 96-0628D (Final Judgment) dated 8 March 2006. It was concluded that the Final Judgment pertained to PCB impacted land at, and in the area of, the former Boston Junk/SAK Recycling operations, a portion which is now occupied by the Boston Convention & Exhibition Center (BCEC) and New Cypher Street.

1.3 Previous PCB Remediation

Limited subsurface testing indicated that PCB contamination was present at the subject Site, some of which was remediated prior to the 1992 construction of the adjacent South Boston Haul Road (currently South Boston Bypass Road). Soil remediation was performed under the Central Artery (I-93/Tunnel (I-90)) Project on behalf of the Massachusetts Highway Department in preparation of the South Boston Bypass Road. Remediation consisted of the excavation and replacement of approximately 5,200 tons (within and beyond the limits of the subject Site) of PCB-impacted ($>2\text{mg/kg}$) surficial soils as documented in the Camp Dresser and McKee (CDM) report submitted to the Massachusetts Highway Department entitled: "Summary Documentation Report for the Close-Out of PCB Remediation Site, South Boston Haul Road, Central Artery/Tunnel Project, Volumes 1&2," dated February 1993.

Remedial goals were to allow PCB concentration levels less than 2 mg/kg in surficial soils. The CDM report further indicated that an isolated area, consisting of approximately 175 cubic yards (cy) of soil containing PCB concentrations exceeding the Upper Concentrations Limit (UCL), potentially remained at the Boston Haul Road Site (exact location not defined). The limits of the PCB remediation and limits of the subject Site are indicated as shown on Figure 2. Historical confirmatory PCB data provided by CDM at the Site and surrounding area is presented in Table I of this Report.

In the years of 1990 to 1992 MassHighway conducted MCP remedial response action assessment and cleanup of the right-of-way for the Haul Road/SBBR as part of the Central Artery/Third Harbor Tunnel project. This project included assessment, cleanup and achievement of a MCP permanent solution for the CSX easement that extends through the northeast corner and east side of the Cypher Site, as well as for substantial portions of the properties located northeast of B Street and the Site. The limits of the PCB remediation and limits of the subject Disposal Site are indicated as shown on Figure 2.

1.4 Regulatory History

As discussed below in Section 1.6.2 MassDEP issued a Notice of Responsibility (NOR) letter, dated 23 July 2010 to the Former Energy International, Inc. Site and lists the McCourt-Broderick Limited Partnership (McCourt) as the potentially responsible party (PRP) and owner of the former Energy International, Inc. property. This NOR letter assigned RTN 3-29395 to the Former Energy International, Inc. Site.

Haley & Aldrich submitted an MCP Phase I Initial Site Investigation Report, Tier II Classification Submittal and Conceptual Phase II Scope of Work to MassDEP in July 2011. The above referenced document summarized the results of soil precharacterization activities conducted to date and indicated the presence of PAHs, petroleum hydrocarbons, metals, and PCBs in soil samples above RCS-1 Reportable Concentrations. In addition, non-reportable levels of other metals, VOCs, other SVOCs, and petroleum were also detected. These compounds are present in the urban fill at the Site (ubiquitous throughout Boston) and are likely attributed to the historical Site filling. No RCGW-2 exceedances were detected in any of the groundwater samples and as a result, groundwater is not considered to be impacted. No Immediate Response Actions are required at the Site.

1.5 EPA Correspondence

Based on Haley & Aldrich telephone discussions and a meeting with Kim Tisa, EPA Region 1 - PCB Coordinator, on 4 May 2011 and 8 December 2011, respectively, it was concluded that the Site would be subject to EPA TSCA regulations based on the following rationale: the Site and Site vicinity has a history of release(s) of PCBs; chemical results approaching PCB concentrations of 50 ppm in soil during the December 2010/January 2011 testing program (described below); the date of the fire and documented PCB release at the Site occurred after 1978; and the original source of PCBs at the Site were potentially present at concentrations greater than 50 ppm.

Based on the 8 December 2011 meeting with Kim Tisa, it was recommended that additional sampling and testing for PCBs be conducted at areas of the Site which detected PCBs at levels exceeding 1 mg/kg since the Site is subject to TSCA regulations. Specifically, additional data was required at depths of 0 to 0.5 ft, 1 to 2 ft and 2 to 3 ft below ground surface to evaluate PCB impact in near surface soils. As a result, a subsequent subsurface exploration and chemical testing program was completed at the Site during March 2012. As discussed in the Self-Implementing PCB Clean-up and Disposal Plan (SIP), herein, the data collected at the Site to date confirms the results of the previous remediation work and remedial goal of 2 ppm (remedial goal previously adopted for the South Boston Haul Road Central Artery/Tunnel project). Historical confirmatory soil data developed from the 1992 MassHighway cleanup program are presented on Figure 3 and in Table I. Based on review of the 1992 confirmatory test results and test results obtained during our December 2010 to January 2011 testing program PCB concentrations were detected at levels below 1 ppm in the previously remediated area, with one exception. At test boring HA104, PCBs were detected at a concentration of 1.84 ppm in soil collected at a depth of 0-2 ft below existing ground surface.

A Self-Implementing PCB Clean-up and Disposal Plan (SIP) pursuant to TSCA requirements at 40 CFR 761.61(a)(3) and 761.3, dated 31 October 2012 has been submitted to the EPA to allow for the clean-up and off-site disposal of TSCA-regulated soil at the Site. The EPA provided Notification of PCB Cleanup and Disposal Approval under 40 CFR 761.61(a)(3) and (c) in a letter dated 31 March 2013. A copy of the EPA approval letter is provided in Appendix A.

1.6 Description of Release

1.6.1 RTN 3-0850

Review of the MassDEP database listing for the Boston Junk/SAK disposal site indicates that the Boston Junk/SAK disposal site (RTN 3-0580) is classified as a Tier 1A site under the MCP, 310 CMR 40.0000 indicating that any remedial/intrusive work would require approval from the MassDEP. Review of the MassDEP database and reports prepared by others indicates that the

Boston Junk/SAK disposal site is also regulated under the United States Environmental Protection Agency's (EPA's) Toxic Substance Control Act (TSCA).

The Boston Junk/SAK disposal site, RTN 3-0580 (was reported in the early 1980s due to a release of polychlorinated biphenyls (PCBs) from transformers formerly stored at the site. Boston Junk/SAC records indicated that Boston Junk commonly purchased large numbers of electrical items including transformers, capacitors, wire, cable, and lead coated cable, from Boston Edison Company. Firefighting activities are believed to have also contributed to the PCB and associated TPH and metals migration across the Boston Junk/SAK disposal site.

In 1998, Boston Edison Company completed an Immediate Response Action (IRA) within the former Boston Junk/SAK Recycling Corporation portion of Disposal Site RTN 3-0580 to address elevated levels of PCBs in soil in this area. The purposes of the IRA were to abate a potential imminent hazard condition on the former SAK property, and to assess the nature and extent of PCB contamination in soil on and adjacent to the property. Releases of PCBs likely occurred on the former SAK property during its operation as a junkyard. Further, active rail yard activities including the accidental release of PCBs resulting from transportation of transformers on the property adjacent to the former SAK property have been reported.

1.6.2 RTN 3-29395

MassDEP issued a NOR letter, dated 23 July 2010 to the Former Energy International, Inc. disposal site and lists the McCourt-Broderick Limited Partnership (McCourt) as the potentially responsible party (PRP) and owner of the former Energy International, Inc. property. This NOR letter assigned RTN 3-29395 to the Former Energy International, Inc. disposal site ("Site"). The NOR stated that response actions are necessary at the subject Site (RTN 3-29395) to achieve a Response Action Outcome (RAO) Statement, the endpoint in the MCP regulatory process. The July 2010 NOR letter also stated the assessment should characterize all contaminants of concern (COC) at the Site, including PCBs, heavy metals, polynuclear aromatic hydrocarbons (PAHs), and petroleum hydrocarbons.

Haley & Aldrich completed a limited soil and groundwater sampling program during the period December 2010 to January 2011. The testing program included the analysis of twenty-seven soil samples for chemical analysis of one or more of the following parameters: volatile organic compounds (VOCs); semi-volatile organic compounds (SVOCs); extractable petroleum hydrocarbons (EPH); volatile petroleum hydrocarbons (VPH); metals; TCLP Lead; and waste characteristics. During this same time period, an additional fifty-four soil samples were analyzed for chemical analysis of PCBs. Compounds of concern detected in soil at the Site are VOCs, SVOCs (including polycyclic aromatic hydrocarbons (PAHs)), EPH, VPH, metals, and Aroclor 1254 and Aroclor 1260.

A supplemental soil sampling and chemical testing program was completed during March 2012 for further delineate the nature and extent of PCB impact to soil. The above sampling programs are described in further detail in subsequent sections of this RAM Plan.

1.7 Person Conducting the RAM

The **Potentially Responsible Party** (PRP) conducting the RAM is:

The McCourt-Broderick Limited Partnership
c/o The McCourt Company
9420 Wilshire Boulevard, Suite 300
Beverly Hills, CA 90212
Telephone Number: 310.746.4200

The **Licensed Site Professional** (LSP) assisting in completion of the RAM is:

Cole E. Worthy III, LSP
Vice President
Haley & Aldrich, Inc.
465 Medford Street, Suite 2200
Boston, Massachusetts 02129
Telephone Number: 617.886.7341

1.8 Anticipated Future Property Use

The Site is currently unoccupied. Future property use has not been determined at this time but will likely remain as commercial or industrial use. No buildings or other redevelopment plans have been proposed at this time.

1.9 Subsurface Investigations

1.9.1 Central Artery Project – Massachusetts Highway Department (Prior to 1992)

Limited subsurface testing indicated that PCB contamination was present at the Site, the majority of which was remediated prior to the 1992 construction of the adjacent South Boston Haul Road (currently South Boston Bypass Road). Soil remediation was performed under the Central Artery (I-93/Tunnel (I-90)) Project on behalf of the Massachusetts Highway Department in preparation of the South Boston Bypass Road. Remediation consisted of the excavation and replacement of approximately 5,200 tons (within and beyond the limits of the subject site) of PCB-impacted ($>2\text{mg/kg}$) surficial soils as documented in the Camp Dresser and McKee (CDM) report entitled: “Summary Documentation Report for the Close-Out of PCB Remediation Site, South Boston Haul Road, Central Artery/Tunnel Project, Volumes 1&2,” dated February 1993. The CDM report further indicated that an isolated area, consisting of approximately 175 cubic yards (cy) of PCB-impacted soil, potentially remained at the Boston Haul Road Site (Note: exact location not defined) (See Figure 3 for limits of the previous CDM excavation activities).

Historical soil quality data collected from the Site and vicinity is presented in Table I. According to the above referenced CDM Report, the soil samples presented in Table I are representative of post excavation confirmatory soil quality data remaining at the remediation limits.

1.9.2 Haley & Aldrich Subsurface Investigations

November to December 2010 Sampling Program – Phase 1

Soil samples were obtained from thirteen (13) Geoprobe borings conducted during the period 29 November 2010 to 2 December 2010 by Geologic-Earth Exploration, Inc. at the approximate locations shown on Figure 2. Borings were advanced via a Geoprobe to depths ranging from 16 to 20 ft with generally continuous soil sampling through the fill material. Observation wells were installed in three of the borehole locations to obtain information on the groundwater quality beneath the Site. Geoprobe boring reports and Groundwater Observation Well Installation reports are provided in Appendix C.

The Geoprobe borings encountered fill overlying naturally deposited organic and marine deposits. Fill material is generally described as poorly graded sand with gravel, sandy silt, cinders, ash, brick-fragments, clinkers and coal fragments. The thickness of the fill ranged from 12.2 to 19.5 ft. Depth to groundwater in the monitoring wells during January 2011 ranged from approximately 10 to 14 ft below ground surface.

From the period of 29 November 2010 to 2 December 2010, Haley & Aldrich prepared and submitted twenty-seven soil samples to Accutest Laboratories for chemical analysis of one or more of the following parameters (VOCs), (SVOCs); (EPH); (VPH); 8 RCRA metals; TCLP lead; and waste characteristics. During this same time period, an additional fifty-four soil samples were submitted to Accutest Laboratories for chemical analysis of PCBs.

A minimum of three composite soil samples were collected from each of the Geoprobe borings for PCB analysis. Composite soil samples were collected at depths of 0 to 2 ft below ground surface to evaluate near surface impacts and at depths of 2 to 4 ft and 6 to 8 ft below ground surface to evaluate the vertical extent of PCB impact. Additionally, five composite soil samples were collected from test borings HA111, HA112, and HA113 at depths ranging from 8 to 18 ft below ground surface. Additional soil sampling for PCBs was conducted at test borings HA111, HA112 and HA113 at the easternmost portion of the property.

One composite soil sample was collected from each of the Geoprobe borings at a depth of 0 to 4 ft to evaluate near surface soil impacts for VOCs, PAHs, metals, and petroleum hydrocarbons. An additional one to two soil samples were also collected from each of the Geoprobe borings at depths ranging from 4 to 13 ft and from 12 to 18 ft to characterize the vertical extent of impact. Three composite soil samples (HA111 (16 to 18 ft), HA112 (16.5 to 18 ft), and HA113 (15.5 to 18 ft)) were collected from the natural organic deposits to evaluate the potential vertical impact of PCBs at the site.

Geoprobe boring logs, observation well installation reports, and laboratory analytical data were previously provided to MassDEP in the Phase I Initial Site Investigation Report and Tier II Classification Submittal, dated 23 July 2011. Results are summarized in Table II.

January 2011 Groundwater Sampling – Phase 1

Haley & Aldrich collected one groundwater sample from monitoring well HA103 (OW) on 6 January 2011. Prior to the collection of the groundwater sample, the monitoring well was developed and the depth to groundwater was measured using a water level indicator. An attempt was made to collect additional groundwater samples from monitoring wells HA106 (OW) and HA111 (OW) on 6 January 2011; however, no water samples could be collected due to the slow recharge of water into these wells and the limited volume of standing water in the well. As a result, no water samples were collected from monitoring wells HA106 (OW) and HA111 (OW). Groundwater samples were collected from monitoring HA103 (OW) well using EPA low flow techniques. Groundwater samples were submitted to Alpha Analytical for analysis for the following: VOCs; EPH; 8 RCRA metals; and PCBs.

Depth to groundwater at the subject site ranged from 10.14 ft (El 4.18) below ground surface at HA111 (OW) to 13.7 ft (El 0.4) below ground surface at well HA103 (OW) during January 2011. Elevations are in feet and are referenced to Boston City Base (BCB). Laboratory analytical data were previously provided to MassDEP in the Phase I Initial Site Investigation Report and Tier II Classification Submittal, dated 23 July 2011. Results are summarized in Table III.

March 2012 Supplemental Soil Sampling – Phase 2

The objective of the supplemental subsurface exploration and chemical testing program was to further delineate the nature and extent of PCB-impacted soil in the western and eastern areas of the Site which detected PCBs at levels exceeding 1 mg/kg in the non-remediated and previously remediated areas of the property. These areas are also located outside of the previously PCB remediated area as discussed in previous section of this report. Specifically, additional sampling and assessment of PCBs was conducted in the areas of previously completed Geoprobe borings HA103, HA104, HA111, HA112 and HA113 to help identify the volume of soil requiring off-site disposition in order to achieve a Permanent Solution at the Site for unrestricted site use without an Activity and Use Limitation (AUL) and to maintain compliance with EPA TSCA regulations under 40 CFR Part 761.

Soil samples were obtained from eight (8) Geoprobe borings conducted on 2 March 2012 by New Hampshire Boring, Inc. at the approximate locations shown on Figure 2. Borings were advanced via a Geoprobe to a depth of 8 ft with generally continuous soil sampling in the fill material. Geoprobe test boring reports are provided in Appendix C. The Geoprobe borings encountered fill materials generally described as poorly graded sand with gravel, sandy silt, cinders, ash, brick-fragments, clinkers, concrete, wood, and coal fragments.

Three composite soil samples were collected from each of the Geoprobe borings for PCB analysis. Composite soil samples were collected at depths of 0 to 0.5 ft below ground surface to evaluate near surface impacts and at depths of 1 to 2 ft and 2 to 3 ft below ground surface to evaluate the vertical extent of PCB impact. Results are summarized in Table II and laboratory analytical reports are provided electronically (CD) in Appendix D.

1.10 Summary of Chemical Test Results

Soil and groundwater analytical testing results obtained by Haley & Aldrich are summarized on Table II and Table III, respectively. Analytical laboratory reports are provided in Appendix D (CD). In summary, results indicated the following:

Phase 1 Soil Results

- A total of 15 out of the 27 soil samples submitted for analysis indicated PAHs levels greater than applicable RCS-1 thresholds. It is believed that the PAHs detected in the soil samples are attributable to the presence of ash, cinders and coal fragments observed in fill materials. In accordance with 310 CMR 40.0317(9), releases of oil or hazardous materials related to coal, coal ash, or wood ash may be considered exempt and do not require notification to MassDEP.
- Two of the 27 soil samples indicated EPH and/or VPH compounds greater than RCS-1 thresholds. At HA102 (0 to 4 ft), C9 to C10 aromatics were detected at a level of 194 mg/kg which exceeds the RCS-1 threshold of 100 mg/kg. At HA109 (0 to 4 ft), C11 to C22 aromatics were detected at a level of 113 mg/kg, which slightly exceed the RCS-1 of 100 mg/kg.
- A total of 5 out of the 27 soil samples indicated concentrations of one or more of the following metals (antimony, arsenic, cadmium, chromium, lead and nickel) greater than RCS-1 thresholds.
- Only 2 out of the 54 soil samples submitted for chemical analysis indicated PCB concentrations greater than applicable RCS-1 thresholds (2 mg/kg). A total of 3 out of the 54 soil samples detected levels of PCBs greater than 1 mg/kg. These RCS-1 exceedances were detected in the near surface soil samples. At HA111 (0 to 2 ft), PCB Aroclor 1254 and Aroclor 1260 were detected at levels of 4.5 and 6 mg/kg respectively. At HA113 (0-2 ft) PCB Aroclor 1254 and Aroclor 1260 were detected at levels of 3.3 and 13 mg/kg respectively. No PCBs were detected above the MCP Upper Concentration Limit (UCL) for PCBs which is 100 mg/kg. In addition, no PCBs were detected in three composite soil samples collected from the organic deposits present beneath the fill materials at the site.

Phase 2 Soil Test Results

- At the western portion of the Site, identified as Area of Concern (AOC) West, no PCBs were detected above 1 mg/kg in Geoprobe borings HA201 through HA203 at depths of 0 to 0.5 ft, 1-2 ft, and 2-3 ft. As a result, Geoprobe borings HA201 and HA203 define the south and north extent of the PCB-impacted area (PCB concentration < 1 mg/kg), respectively. Geoprobe boring HA202, located between previously completed Geoprobe borings HA103 and HA104 also detected PCB concentration levels less than 1 mg/kg.
- At the eastern portion of the Site, identified as Area of Concern (AOC) East, at Geoprobe boring locations HA205 and HA208, PCBs were detected in the upper sample depth (0 to 0.5 ft) at concentration levels of 16.6 and 38.5 mg/kg, respectively. Geoprobe boring HA204 defines the southern extent of the PCB-impacted area (PCB concentration < 1 mg/kg). The western extent of AOC West is defined by borings HA109, HR-18, HA110, and HR-16, indicated as shown on Figure 3.

The presence of PCBs at the Site is likely associated with the historic use of the property as a junkyard, in particular the presence of Boston Edison Company electrical equipment, and/or railroad and transit operations. Firefighting activities are believed to have also contributed to the PCB and associated TPH and metals migration across the Subject Disposal Site. PCB are common to a wide variety of every-day industrial uses and manufactured products – e.g. inks, dyes, carbon-less carbon paper, tar paper, coatings, paints, plastics, adhesives, lubricants, floor tile, cinder blocks, roofing tar, insulation, and electrical equipment. PCB Aroclors 1254 and 1260 which were detected at the subject Site are typical aroclors associated with dielectric fluid used in transformers. PCB also appears to be associated with fill materials. For example, the PCB concentrations and depth profile in Geoprobe borings HA103 and HA105 are not indicative of surface deposition; PCBs were not detected in the surficial soil samples collected at 0 to 2 ft, but were detected at deeper sample depths of 2 to 4 ft as indicated in Table II. Review of the MassDEP database indicates that multiple aroclors including 1016, 1242, 1248, 1254 and 1260 have been detected on surrounding properties near the subject Disposal Site.

Groundwater Results

No RCGW-2 exceedances were detected in any of the groundwater samples and as a result, groundwater is not considered to be part of the Disposal Site, RTN 3-29395 under the MCP as indicated in Table III.

1.11 Limitations

This RAM Plan was prepared by Haley & Aldrich in accordance with our Memorandum to McCourt-Broderick Limited Partnership c/o The McCourt Company, Inc. (Mccourt) dated 15 June 2012 (Proposal). The RAM Plan was prepared for the exclusive use of McCourt, the MassDEP and the EPA in connection with the subject Former Energy International Inc. project. There are no intended beneficiaries other than McCourt, the MassDEP and the EPA.

Haley & Aldrich shall owe no duty whatsoever to any other person or entity on account of the Proposal or the RAM Plan. Use of this RAM Plan by any person or entity other than McCourt, the MassDEP and the EPA for any purpose whatsoever without the express written authorization of McCourt and Haley & Aldrich shall be at such other person's or entity's sole risk, and shall be without legal exposure or liability to McCourt or Haley & Aldrich, Inc.

2. RELEASE ABATEMENT MEASURE PLAN

2.1 RAM Objectives

The objectives of the RAM Plan are to identify, manage, and facilitate off-site reuse, disposal, recycling, and/or treatment of Remediation Waste associated with excavation and management of PCB-impacted soil.

2.2 Remedial Approach

The remedial approach for the Site involves excavation and off-site removal of PCB contaminated soils to High Occupancy Levels without further conditions. The High Occupancy Area and Cleanup Levels are defined below:

A *High Occupancy Area* is defined by 40 CFR 761.61 as follows:

“any area where PCB remediation waste has been disposed of on-site and where occupancy for any individual not wearing dermal and respiratory protection for a calendar year is: 840 hours or more (an average of 16.8 hours or more per week) for non-porous surfaces and 335 hours or more (an average of 6.7 hours or more per week) for bulk PCB remediation waste.”

High Occupancy Cleanup Levels for bulk PCB remediation waste are as follows:

- ≤ 1 ppm “without further conditions” (see 40 CFR 761.61(a)).
- > 1 ppm and ≤ 10 ppm if covered with a cap meeting the requirements of 40 CFR 761.61(a)(7) and a deed restriction is implemented as per 40 CFR 761.61(a)(8).

Although no future redevelopment plans exist for the property, it is planned to remove PCB-impacted soils and other MCP-related constituents at the Site in order to achieve a Permanent Solution (MCP) and achieve a High Occupancy Cleanup Level (TSCA). Additional information is provided below.

Three Areas of Concern (AOC) have been identified at the Site, located as shown on Figure 3.

- AOC-WEST A – All impacted soils above 1 mg/kg PCBs will be removed to a maximum depth of 2 ft below grade surface from this AOC which is located on the western portion of the parcel which is located within a portion of the previously PCB soil removal and remediation work area performed in 1992 and the railroad tracks and the property boundary so that a TSCA cap does not have to be installed. This AOC would be considered High Occupancy without further conditions. It is not possible to remove the railroad tracks to conduct additional soil removal to the north along South Boston Bypass Road.
- AOC-WEST B – All impacted soils above 1 mg/kg PCBs will be removed to a maximum depth of 4.5 ft below grade surface from this AOC which is located on the western portion of the parcel between a portion of the previously PCB soil removal and remediation work area performed in 1992 and the railroad tracks and the property boundary area so that a TSCA cap does not have to be installed. This AOC would be considered High Occupancy without further

conditions. It is not possible to remove the railroad tracks to conduct additional soil removal to the north along South Boston ByPass Road.

- AOC-EAST – All impacted soils above 1 mg/kg PCBs will be removed to a maximum depth of 2 ft below grade surface from this AOC which is located on the eastern portion of the parcel between the area the previously PCB soil removal and remediation work area performed in 1992 and the property boundary so that a so that a TSCA cap does not have to be installed. This AOC would be considered High Occupancy without further conditions.

As discussed above and in previous sections of this Report, the remedial approach involves the excavation and off-site disposal of PCB-impacted soils to a cleanup level of 1 mg/kg or less to allow for High Occupancy Use without further conditions, or an Activity and Use Limitation (AUL) under the MCP. Subsequent to removal of PCB-impacted soils, the excavated areas will be backfilled with “clean borrow material.”

2.3 RAM Activities

A description of the planned RAM activities is provided below:

1. Excavation and off-site Disposition of Remediation Waste: Excavate up to 400 cy of soils classified as Remediation Waste as part of the associated remediation work. Haley & Aldrich and the Contractor will facilitate off-site reuse, disposal, recycling, and/or treatment of Remediation Waste. It not anticipated that soils will be stockpiled on-site and accordingly excavated soils will be loaded directly onto trucks for transportation to appropriate facilities based on precharacterization data that has been obtained. In accordance with the SIP, impacted soils are to be disposed off-site to TREE in Rochester, New Hampshire. If necessary, stockpile soils will be placed on impervious surface, such as polyethylene or asphalt, and cover with polyethylene to protect against water or wind erosion.
2. Loading and Wheel-Wash: Remediation Waste removed from the Site shall be loaded within the limits of the Site. Trucks leaving the Site shall be covered and cleaned of debris that might fall from the trucks during transport. Trucks that have come in contact with PCB-impacted soils that are regulated by TSCA shall undergo decontamination in accordance with the procedures outlined in the EPA-approved Self-Implementing Plan.
3. Perimeter Dust Monitoring: Haley & Aldrich will conduct a perimeter monitoring program to assess possible off-site migration of airborne particulates (dust). Perimeter monitoring will consist of a minimum of two to four monitoring stations that are in place and in continuous operation during excavation of Remediation Waste that exceeds the criteria for reuse at an unlined landfill. If the monitoring data indicate that action levels are exceeded, the Contractor will be required to implement mitigation measures.

The action level for employment of dust suppression techniques is the presence of visible dust. If visible dust is observed during remedial excavation activities, the Contractor will employ dust control measures to limit airborne dust. Additionally, the Contractor will monitor dust levels within the TSCA Work Zone using portable dust meters. Fence line monitoring will be conducted along South Boston Bypass Road and Cypher Street during soil removal activities. The fence line action level will be established at 100 ug/m³ above background conditions in accordance with EPA National Ambient Air Quality Standards for PM10 that MassDEP has

adopted. This standard is based on particle concentrations measured as PM10, which includes particles with an aerodynamic diameter of 10 micrometers (μm) and less. In the event this action level is exceeded, more stringent dust control measures will be implemented by the Contractor.

4. Dust Control: During construction and remediation, the Contractor will be required to employ dust control measures to minimize the creation of airborne dust. At a minimum, standard dust control techniques such as watering down the site or spreading hygroscopic salts will be required where heavy equipment will be travelling.
5. Decontamination and On-Site Reuse of Concrete and Non-Porous Materials: If encountered, larger-sized concrete debris will be excavated within the limits of the TSCA regulated area and segregated and stockpiled within the TSCA regulated area. The concrete debris will be washed to remove loose soil, and samples of the concrete will be collected and submitted to a laboratory for analysis for PCBs using manual soxhlet extraction and EPA Method 8082. Sample collection will be conducted by pulverizing the surface of representative portions of the concrete that were in contact with soils. We anticipate collecting one sample for every approximately 250 cy of concrete.

Based on the results of the testing, the concrete may be crushed and reused on-site as backfill. Concrete may be reused if the laboratory testing indicates PCB concentrations are less than or equal to 1 mg/kg. Concrete exhibiting concentrations of PCBs greater than 1 mg/kg will be disposed off-site as TSCA regulated materials.

Nonporous materials (such as granite blocks or boulders) proposed for on-site reuse will be decontaminated in accordance with TSCA Subpart S.

6. Decontamination and Disposal of Abandoned Railroad Track and Wood Tie Materials: An abandoned railroad track (s) is located in the vicinity of AOC East and will be removed from within the limits of the TSCA regulated area to excavate the underlying soils. The abandoned steel track debris is considered to be non-porous material and will be stockpiled within the TSCA regulated area. The non-porous track debris proposed for off-site disposal or on-site reuse will be decontaminated in accordance with TSCA Subpart S, or disposed off-site to with impacted soils to TREE in Rochester, New Hampshire.
7. Management of groundwater: The groundwater levels measured at observation well locations ranged 10.14 ft (El 4.18) below ground surface at HA111 (OW) to 13.7 ft (El 0.4) below ground surface at well HA103 (OW) during January 2011. Accordingly, since groundwater is more than 10 ft below ground surface and planned excavations are typically 4 ft or less, groundwater is **not** anticipated to be encountered during construction. If encountered, groundwater from the geotechnical excavations will be recharged on-site in accordance with the MCP at 310 CMR 40.0045.
8. Additional Site Assessment: Haley & Aldrich may conduct additional assessment activities to further characterize soil and/or groundwater quality as needed prior to excavation and off-site disposition, or to provide confirmatory data for regulatory compliance.
9. Site Access: Access to the site will be restricted to authorized persons during execution of the contract. A perimeter fence exists at the site and will be locked during non-working hours.

10. Contractor's Health & Safety Plan: Prior to the start of work, the Contractor will be given the existing laboratory data for the site to prepare a Health & Safety (H&S) Plan in accordance with all local, state and federal laws and regulations, including 310 CMR 40.0018, Health & Safety specifications. The Contractor will also be responsible for notifying workers involved with on-going construction activities of the project-specific H&S Plan and protocols for handling potentially impacted soils (e.g., criteria for donning appropriate personal protection equipment). A copy of the H&S Plan specification (included in the construction contract), is included in Appendix E.
11. Soil and Material Management Plan: A "Soil Material Management Plan" will be part of the contract documents and will contain requirements for soil classification, handling, storage, on-site treatment, and off-site disposition of excavated material. A copy of the Soil Material Management Plan specification (included in the construction contract), is included in Appendix E.

2.4 Remediation Waste Management

Results of the subsurface exploration testing programs are summarized in this RAM Plan submittal, a copy of which will be made available to the Contractor. RAM activities will involve management of contaminated soil and/or water (i.e. Remediation Waste) prior to treatment and/or off-site disposition. Excavated soils, including Remediation Waste, will be managed in accordance with 310 CMR 40.0030 and TSCA.

Materials will be monitored during excavation for visual and olfactory evidence of contamination (such as observed discoloration, texture and odor). Additional testing may be required for off-site disposal, reuse, recycling or treatment as required by the specific facility or for reclassification. The types and frequency of testing will be determined by Haley & Aldrich and as required by the facility.

Wastes generated from the decontamination activities (including but not limited to bag filters and granular activated carbon) will be managed and disposed of in accordance with applicable Federal, State and local regulations.

2.5 Environmental Monitoring Plan

Haley & Aldrich will provide full-time monitoring of remediation activities and bulk excavation of Remediation Waste to facilitate construction of the proposed Spaulding Rehabilitation Hospital. Haley & Aldrich will monitor excavated soils for visual and olfactory evidence of contamination (such as observed discoloration, texture and odor) and with a photoionization detector (PID), if necessary. Haley & Aldrich will also be available to make visits on short notice as requested by the Contractor to assess unanticipated conditions.

Additional testing for off-site disposal, reuse, recycling or treatment may be conducted if required by the selected receiving facility, or if excavated soils exhibit characteristics that are not consistent with precharacterization data (e.g. NAPL-impacted soils). The types and frequency of testing will be determined by the Licensed Site Professional (LSP) and the requirements of the receiving facility.

2.6 Federal, State and Local Permits and Requirements

As noted in previous section of this RAM Plan, , as noted above, a Self-Implementing Cleanup and Disposal Plan was submitted to the US Environmental Protection Agency on 31 October 2012.

2.7 RAM Schedule and Implementation

RAM activities are currently anticipated to commence in during the Spring/Summer 2013. RAM activities will be considered complete when the objectives of the RAM Plan have been met, and when active and ongoing remedial actions related to the RAM have been terminated (310 CMR 40.0446(2)). RAM activities are anticipated to be completed in about 6 months.

RAM activities will be documented and presented in RAM Status Reports and a RAM Completion Report, which will be submitted in accordance with the schedule indicated in 310 CMR 40.0440. A Response Action Outcome (RAO) Statement will be submitted for RTN 3-29395 after completion of the work.

2.8 Financial Assurance

The proposed RAM involves excavation of less than 1,500 cubic yards of soil with oil and hazardous material concentrations in excess of applicable RCS-1 Reportable Concentrations. Therefore, in accordance with Section 40.0442(5) of the MCP, there is no requirement to demonstrate the presences of sufficient financial reserves.

3. MASSDEP CONSTRUCTION POLICY #WSC-00-425

As previously discussed, the Site is currently unoccupied. Future property use has not been determined at this time but will likely remain as commercial or industrial use. No buildings or other redevelopment plans have been proposed at this time. Accordingly, MassDEP Policy #WSC-00-425 does not apply and a focused risk characterization was not conducted for the RAM activity.

4. LSP OPINION

Cole E. Worthy is the LSP for the project. The LSP seal and signature are provided on the RAM Plan Transmittal Form BWSC 106, a copy of which is included in Appendix B.

This document contains material facts, data, and other information that support the LSP Opinion that, to the best of the LSP's knowledge, information and belief, the response actions that are the subject of this submittal (i) have been developed in accordance with the applicable provisions of M.G.L.c.21E and 310 CMR 40.0000, (ii) are appropriate and reasonable to accomplish the purposes of such response action as set forth in the applicable provisions of M.G.L.c.21E and 310 CMR 40.0000, and (iii) comply with the identified provisions of all orders, permits, and approvals identified in this submittal.

TABLE I

SUMMARY OF HISTORICAL SOIL QUALITY DATA

MARCH AND APRIL 1992

FORMER ENERGY INTERNATIONAL PARCEL

BOSTON, MASSACHUSETTS

FILE NO. 06318-502

Client Sample ID:	MassDEP Reportable Concentration	HR-4 AREA "A"	HR-5 AREA "A"	HR-6 AREA "B"	HR-7 AREA "C"	HR-8 AREA "C"	HR-9 AREA "D"	HR-10 AREA "D2"	HR-11 AREA "D"	HR-12 AREA "E"
Sample Location ID:										
Sample Depth (ft):		1	1	5.5	2	3	1	3	1	2
Sampling Round	(RCS-1)	Initial	Initial	4th	Initial	2nd	Initial	2nd	Initial	Initial
Polychlorinated Biphenyls (PCBs) (mg/kg)										
Total PCBs	NA	ND	1.8	ND	ND	0.245	1.8	ND	ND	ND

Notes and Abbreviations:

Only compounds detected on the dates indicated are included in this table.

- : Analysis not conducted.

Bold values indicate an exceedance of the MassDEP Reportable Concentration in Soil (RCS-1).

PCBs analyzed by SW846 EPA Method 8082

Additional sampling rounds were collected after additional soil was removed during the soil excavation and remediation to confirm remediation was conducted.

This Table only includes the conformatory post-excavation sampling results as provided by CDM.

TABLE I

SUMMARY OF HISTORICAL SOIL QUALITY DATA

MARCH AND APRIL 1992

FORMER ENERGY INTERNATIONAL PARCEL

BOSTON, MASSACHUSETTS

FILE NO. 06318-502

Client Sample ID:	MassDEP Reportable Concentration	HR-13 AREA "E"	HR-14 AREA "E"	HR-15 AREA "E"	HR-16 AREA "E"	HR-17 AREA "F"	HR-18 AREA "F"
Sample Location ID:							
Sample Depth (ft):		2	2	2	2	3	3
Sampling Round	(RCS-1)	Initial	Initial	Initial	Initial	Initial	Initial
Polychlorinated Biphenyls (PCBs) (mg/kg)							
Total PCBs	NA	ND	ND	0.53	0.49	ND	1

Notes and Abbreviations:

Only compounds detected on the dates indicated are included in this

- : Analysis not conducted.

Bold values indicate an exceedance of the MassDEP Reportable Cor
PCBs analyzed by SW846 EPA Method 8082

Additional sampling rounds were collected after additional soil was re

This Table only includes the conformatory post-excavation sampling

TABLE II
SUMMARY OF SOIL QUALITY DATA
FORMER ENERGY INTERNATIONAL PARCEL
BOSTON, MASSACHUSETTS
FILE NO. 06318-502

Client Sample ID: Lab Sample ID: Sample Depth (ft): Date Sampled: Matrix:	MassDEP Reportable Concentration (RCS-1)	HA101_0-2' M96288-8 0-2 12/2/2010 Fill	HA101_0-4' M96289-3 0-4 12/2/2010 Fill	HA101_2-4' M96288-9 2-4 12/2/2010 Fill	HA101_4-8' M96289-4 4-8 12/2/2010 Fill	HA101_6-8' M96288-11 6-8 12/2/2010 Fill	HA102_0-2' M96288-1 0-2 12/2/2010 Fill	HA102_0-4' M96289-1 0-4 12/2/2010 Fill	HA102_2-4' M96288-2 2-4 12/2/2010 Fill	HA102_4-8' M96289-2 4-8 12/2/2010 Fill	HA102_6-8' M96288-4 6-8 12/2/2010 Fill	HA103_0-2' M96256-11 0-2 12/1/2010 Fill	HA103_0-4' M96257-7 0-4 12/1/2010 Fill	HA103_2-4' M96256-12 2-4 12/1/2010 Fill	HA103_4-8' M96257-8 4-8 12/1/2010 Fill	HA103_6-8' M96256-14 6-8 12/1/2010 Fill	HA103_8-12' M96257-9 8-12 12/1/2010 Fill	HA104_0-2' M96256-19 0-2 12/1/2010 Fill	HA104_0-4' M96257-5 0-4 12/1/2010 Fill	HA104_2-4' M96256-20 2-4 12/1/2010 Fill
VOCs (µg/kg)																				
Benzene	2000	-	ND (15)	-	43.6	-	-	ND (13)	-	ND (18.5)	-	-	36	-	80.8	-	ND (13.5)	-	ND (12.5)	-
Naphthalene	4000	-	ND (150)	-	426	-	-	271	-	ND (185)	-	-	267	-	557	-	738	-	ND (115)	-
Toluene	30000	-	ND (150)	-	ND (145)	-	-	ND (130)	-	395	-	-	ND (130)	-	ND (195)	-	ND (135)	-	ND (115)	-
1,2,4-Trimethylbenzene	1000000	-	ND (150)	-	ND (145)	-	-	ND (130)	-	ND (185)	-	-	ND (130)	-	ND (195)	-	ND (135)	-	ND (115)	-
Xylene (total)	300000	-	ND (60)	-	ND (55)	-	-	145	-	ND (75)	-	-	179	-	360	-	ND (55)	-	ND (47)	-
SVOCs (µg/kg)																				
Benzoic acid	1000000	-	ND (280)	-	ND (270)	-	-	ND (280)	-	ND (305)	-	-	ND (275)	-	ND (305)	-	ND (2950)	-	ND (270)	-
3&4-Methylphenol	500000	-	ND (280)	-	ND (270)	-	-	ND (280)	-	ND (305)	-	-	ND (275)	-	ND (305)	-	ND (2950)	-	ND (270)	-
Acenaphthene	4000	-	ND (140)	-	537	-	-	ND (140)	-	2790	-	-	ND (135)	-	383	-	ND (1450)	-	ND (135)	-
Acenaphthylene	1000	-	ND (140)	-	740	-	-	ND (140)	-	ND (155)	-	-	ND (135)	-	564	-	ND (1450)	-	ND (135)	-
Anthracene	1000000	-	712	-	2550	-	-	ND (140)	-	5750	-	-	641	-	1300	-	ND (1450)	-	566	-
Benzo(a)anthracene	7000	-	1400	-	7540	-	-	357	-	7760	-	-	1470	-	2810	-	4110	-	1110	-
Benzo(a)pyrene	2000	-	1100	-	5800	-	-	316	-	5270	-	-	1270	-	2190	-	3210	-	1330	-
Benzo(b)fluoranthene	7000	-	944	-	4340	-	-	296	-	3900	-	-	1330	-	2080	-	ND (1450)	-	1430	-
Benzo(g,h,i)perylene	1000000	-	624	-	2700	-	-	ND (140)	-	2370	-	-	903	-	1440	-	ND (1450)	-	1370	-
Benzo(k)fluoranthene	70000	-	823	-	4240	-	-	ND (140)	-	3870	-	-	1020	-	1950	-	ND (1450)	-	1270	-
Chrysene	70000	-	1490	-	6590	-	-	436	-	7470	-	-	1520	-	2960	-	4080	-	1450	-
Dibenzo(a,h)anthracene	700	-	ND (140)	-	1450	-	-	ND (140)	-	1190	-	-	347	-	595	-	ND (1450)	-	458	-
Dibenzofuran	100000	-	ND (140)	-	571	-	-	ND (140)	-	1800	-	-	ND (135)	-	494	-	ND (1450)	-	ND (135)	-
bis(2-Ethylhexyl)phthalate	200000	-	ND (140)	-	ND (135)	-	-	ND (140)	-	ND (155)	-	-	ND (135)	-	ND (150)	-	ND (1450)	-	ND (135)	-
Fluoranthene	1000000	-	2730	-	10700	-	-	598	-	18900	-	-	2550	-	4700	-	7980	-	1720	-
Fluorene	1000000	-	ND (140)	-	902	-	-	ND (140)	-	3340	-	-	ND (135)	-	435	-	ND (1450)	-	ND (135)	-
Indeno(1,2,3-cd)pyrene	7000	-	654	-	2900	-	-	ND (140)	-	2380	-	-	934	-	1520	-	ND (1450)	-	1310	-
2-Methylnaphthalene	700	-	ND (140)	-	299	-	-	617	-	1020	-	-	372	-	881	-	ND (1450)	-	ND (135)	-
Naphthalene	4000	-	294	-	662	-	-	ND (140)	-	1180	-	-	398	-	861	-	ND (1450)	-	ND (135)	-
Phenanthrene	10000	-	2350	-	6180	-	-	354	-	23000	-	-	2000	-	3720	-	7650	-	1070	-
Pyrene	1000000	-	2180	-	9050	-	-	630	-	11800	-	-	2370	-	4230	-	6720	-	1890	-
VPH (µg/kg)																				
C9-C10 Aromatics	100000	-	ND (3250)	-	ND (3150)	-	-	194000	-	84500	-	-	ND (2850)	-	ND (4250)	-	19300	-	ND (2550)	-
C5-C8 Aliphatics	100000	-	ND (3250)	-	ND (3150)	-	-	ND (29000)	-	ND (3950)	-	-	ND (2850)	-	ND (4250)	-	ND (2950)	-	ND (2550)	-
C9-C12 Aliphatics	1000000	-	ND (3250)	-	ND (3150)	-	-	228000	-	81800	-	-	ND (2850)	-	ND (4250)	-	13900	-	ND (2550)	-
EPH (µg/kg)																				
C9-C18 Aliphatics	1000000	-	13300	-	ND (4800)	-	-	1410000	-	278000	-	-	14800	-	27500	-	98200	-	ND (4950)	-
C19-C36 Aliphatics	3000000	-	67400	-	22500	-	-	710000	-	167000	-	-	85500	-	112000	-	117000	-	58900	-
C11-C22 Aromatics	1000000	-	88200	-	155000	-	-	739000	-	334000	-	-	138000	-	257000	-	217000	-	69900	-

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FORMER ENERGY INTERNATIONAL PARCEL
BOSTON, MASSACHUSETTS
FILE NO. 06318-502

Client Sample ID: Lab Sample ID: Sample Depth (ft): Date Sampled: Matrix:	MassDEP Reportable Concentration (RCS-1)	HA101_0-2' M96288-8 0-2 12/2/2010 Fill	HA101_0-4' M96289-3 0-4 12/2/2010 Fill	HA101_2-4' M96288-9 2-4 12/2/2010 Fill	HA101_4-8' M96289-4 4-8 12/2/2010 Fill	HA101_6-8' M96288-11 6-8 12/2/2010 Fill	HA102_0-2' M96288-1 0-2 12/2/2010 Fill	HA102_0-4' M96289-1 0-4 12/2/2010 Fill	HA102_2-4' M96288-2 2-4 12/2/2010 Fill	HA102_4-8' M96289-2 4-8 12/2/2010 Fill	HA102_6-8' M96288-4 6-8 12/2/2010 Fill	HA103_0-2' M96256-11 0-2 12/1/2010 Fill	HA103_0-4' M96257-7 0-4 12/1/2010 Fill	HA103_2-4' M96256-12 2-4 12/1/2010 Fill	HA103_4-8' M96257-8 4-8 12/1/2010 Fill	HA103_6-8' M96256-14 6-8 12/1/2010 Fill	HA103_8-12' M96257-9 8-12 12/1/2010 Fill	HA104_0-2' M96256-19 0-2 12/1/2010 Fill	HA104_0-4' M96257-5 0-4 12/1/2010 Fill	HA104_2-4' M96256-20 2-4 12/1/2010 Fill
Metals (mg/kg)																				
Antimony	20	-	13.6	-	63.6	-	-	ND (0.43)	-	ND (0.9) a	-	-	1.4	-	3	-	ND (2.15) a	-	ND (0.42)	-
Arsenic	20	-	10.3	-	13.1	-	-	7.4	-	16.1	-	-	7.8	-	13.1	-	20.8	-	7.9	-
Barium	1000	-	80.3	-	97.8	-	-	41.2	-	70.5	-	-	57.9	-	120	-	136	-	91.4	-
Beryllium	100	-	0.4	-	ND (0.17)	-	-	0.35	-	ND (0.18)	-	-	0.37	-	0.41	-	0.35	-	0.35	-
Cadmium	2	-	0.94	-	ND (0.17)	-	-	0.4	-	0.46	-	-	0.57	-	0.96	-	0.66	-	ND (0.17)	-
Chromium	30	-	14.9	-	13.1	-	-	13.4	-	12.3	-	-	14.1	-	19.8	-	15.2	-	13.1	-
Lead	300	-	346	-	1690	-	-	83.6	-	210	-	-	175	-	284	-	411	-	268	-
Mercury	20	-	1.1	-	1.6	-	-	0.74	-	1.5	-	-	0.36	-	0.77	-	2.7	-	0.68	-
Nickel	20	-	18.5	-	14.5	-	-	14.4	-	20.1	-	-	14.4	-	18.6	-	26.3	-	12.4	-
Selenium	400	-	ND (0.415)	-	ND (0.42)	-	-	ND (0.43)	-	ND (0.445)	-	-	ND (0.41)	-	1.1	-	0.97	-	ND (0.42)	-
Silver	100	-	0.8	-	5.2	-	-	ND (0.215)	-	ND (0.225)	-	-	ND (0.205)	-	ND (0.23)	-	ND (0.215)	-	ND (0.21)	-
Vanadium	600	-	24.7	-	21.1	-	-	26.8	-	30.4	-	-	24.3	-	24.3	-	22.3	-	22.5	-
Zinc	2500	-	616	-	340	-	-	105	-	239	-	-	107	-	205	-	266	-	111	-
TCLP Metals (mg/L)																				
Lead	NA	-	0.22	-	1.9	-	-	-	-	0.48	-	-	0.043	-	0.082	-	0.35	-	0.059	-
Polychlorinated Biphenyls (PCBs) (µg/kg)																				
Aroclor 1248	2000	ND (55)	-	ND (55)	-	ND (55)	ND (60)	-	ND (50)	-	ND (60)	ND (50)	-	ND (55)	-	ND (60)	-	ND (55)	-	ND (55)
Aroclor 1254	2000	299	-	232	-	ND (55)	ND (60)	-	ND (50)	-	ND (60)	ND (50)	-	728	-	ND (60)	-	1840	-	338
Aroclor 1260	2000	187 a	-	118	-	ND (55)	ND (60)	-	ND (50)	-	ND (60)	ND (50)	-	552 a	-	ND (60)	-	ND (55)	-	315 a
Waste Characteristics																				
Corrosivity as pH	NA	-	7	-	7.2	-	-	7.4	-	7.4	-	-	8.6	-	7.4	-	7.5	-	7.9	-
Cyanide Reactivity (mg/kg)	NA	-	<1.7	-	<1.7	-	-	<1.7	-	<1.8	-	-	<1.7	-	<1.8	-	<1.8	-	<1.7	-
Ignitability (Flashpoint) (deg F)	NA	-	>230	-	>230	-	-	>230	-	>230	-	-	>230	-	>230	-	>230	-	>230	-
Redox Potential Vs H2	NA	-	425	-	429	-	-	427	-	392	-	-	402 ^b	-	413 ^b	-	394 ^b	-	407 ^b	-
Solids, Percent	NA	88.5	89	85.9	90.5	92.9	85.3	88.6	95.4	81.7	84.3	92.8	90.6	85.7	81.7	82.1	83	93.8	90.6	89.2
Sulfide Reactivity (mg/kg)	NA	-	<56	-	<55	-	-	<56	-	<61	-	-	<55	-	<61	-	<60	-	<55	-

Notes and Abbreviations:

^a Elevated RL due to dilution required for matrix interference.

^b Analysis requested after recommended holding time.

Only compounds detected on the dates indicated are included in this table.

ND (110): Compound not detected; value in parentheses is one half the laboratory reporting limit.

< : Compound not detected; value is the laboratory reporting limit.

- : Analysis not conducted.

Bold values indicate an exceedance of the MassDEP Reportable Concentration in Soil (RCS-1).

VOCs: Volatile Organic Compounds by SW846 8260B

SVOCs: Semi-volatile Organic Compounds by SW846 8270C

VPH: Volatile Petroleum Hydrocarbons by MADEP VPH REV 1.1

EPH: Extractable Petroleum Hydrocarbons by MADEP EPH REV 1.1

^a Estimated value due to the presence of other Aroclor pattern.

PCBs analyzed by SW846 EPA Method 8082

TABLE II
SUMMARY OF SOIL QUALITY DATA
FORMER ENERGY INTERNATIONAL PARCEL
BOSTON, MASSACHUSETTS
FILE NO. 06318-502

Client Sample ID: Lab Sample ID: Sample Depth (ft): Date Sampled: Matrix:	MassDEP Reportable Concentration	HA104_6-8' M96256-22	HA104_8-13.2' M96257-6 M96257-6A	HA105_0-2' M96256-8	HA105_0-4' M96257-3 M96257-3A	HA105_2-4' M96256-9	HA105_4-8' M96257-4 M96257-4A	HA105_6-8' M96256-26	HA106_0-2' M96256-1	HA106_0-4' M96257-1 M96257-1A	HA106_2-4' M96256-2	HA106_6-8' M96256-4	HA106_8-12.5' M96257-2 M96257-2A	HA107_0-2' M96226-26	HA107_0-4' M96225-7 M96225-7A	HA107_2-4' M96226-27	HA107_6-8' M96226-29	HA107_8-12' M96225-8 M96225-8A
	(RCS-1)	6-8 12/1/2010 Fill	8-13.2 12/1/2010 Fill	0-2 12/1/2010 Fill	0-4 12/1/2010 Fill	2-4 12/1/2010 Fill	4-8 12/1/2010 Fill	6-8 12/1/2010 Fill	0-2 12/1/2010 Fill	0-4 12/1/2010 Fill	2-4 12/1/2010 Fill	6-8 12/1/2010 Fill	8-12.5 11/30/2010 Fill	0-2 11/30/2010 Fill	0-4 11/30/2010 Fill	2-4 11/30/2010 Fill	6-8 11/30/2010 Fill	8-12 11/30/2010 Fill
VOCs (µg/kg)																		
Benzene	2000	-	ND (18)	-	37.7	-	ND (14.5)	-	-	ND (9.5)	-	-	102	-	31.7	-	-	ND (20.5)
Naphthalene	4000	-	2570	-	ND (120)	-	ND (145)	-	-	ND (95)	-	-	5750	-	ND (150)	-	-	1090
Toluene	30000	-	ND (180)	-	ND (120)	-	ND (145)	-	-	ND (95)	-	-	ND (160)	-	ND (150)	-	-	ND (205)
1,2,4-Trimethylbenzene	1000000	-	ND (180)	-	ND (120)	-	ND (145)	-	-	ND (95)	-	-	545	-	ND (150)	-	-	ND (205)
Xylene (total)	300000	-	ND (70)	-	ND (48.5)	-	ND (60)	-	-	ND (38.5)	-	-	466	-	ND (60)	-	-	ND (80)
SVOCs (µg/kg)																		
Benzoic acid	1000000	-	ND (310)	-	ND (280)	-	ND (290)	-	-	ND (270)	-	-	ND (6500)	-	ND (280)	-	-	ND (335)
3&4-Methylphenol	500000	-	ND (310)	-	ND (280)	-	ND (290)	-	-	ND (270)	-	-	ND (6500)	-	ND (280)	-	-	727
Acenaphthene	4000	-	992	-	ND (140)	-	ND (145)	-	-	436	-	-	ND (3150)	-	472	-	-	3830
Acenaphthylene	1000	-	ND (155)	-	ND (140)	-	ND (145)	-	-	ND (135)	-	-	9470	-	584	-	-	471
Anthracene	1000000	-	2120	-	683	-	ND (145)	-	-	914	-	-	11200	-	1760	-	-	4020
Benzo(a)anthracene	7000	-	2620	-	1320	-	ND (145)	-	-	1560	-	-	38900	-	4820	-	-	5400
Benzo(a)pyrene	2000	-	1900	-	1070	-	ND (145)	-	-	1250	-	-	16600	-	3870	-	-	3260
Benzo(b)fluoranthene	7000	-	1370	-	1040	-	ND (145)	-	-	1260	-	-	19700	-	4610	-	-	3300
Benzo(g,h,i)perylene	1000000	-	1240	-	967	-	ND (145)	-	-	1090	-	-	13500	-	1690	-	-	998
Benzo(k)fluoranthene	70000	-	1520	-	921	-	ND (145)	-	-	1050	-	-	7010	-	2970	-	-	2590
Chrysene	70000	-	2550	-	1380	-	ND (145)	-	-	1580	-	-	69200	-	5060	-	-	5550
Dibenzo(a,h)anthracene	700	-	464	-	350	-	ND (145)	-	-	379	-	-	19000	-	834	-	-	542
Dibenzofuran	100000	-	540	-	ND (140)	-	ND (145)	-	-	326	-	-	8210	-	402	-	-	2010
bis(2-Ethylhexyl)phthalate	200000	-	ND (155)	-	ND (140)	-	ND (145)	-	-	ND (135)	-	-	ND (3150)	-	ND (140)	-	-	ND (170)
Fluoranthene	1000000	-	4880	-	2280	-	514	-	-	3020	-	-	25200	-	8090	-	-	10500
Fluorene	1000000	-	1120	-	281	-	ND (145)	-	-	463	-	-	10600	-	595	-	-	3610
Indeno(1,2,3-cd)pyrene	7000	-	1190	-	937	-	ND (145)	-	-	1030	-	-	10900	-	1900	-	-	1150
2-Methylnaphthalene	700	-	385	-	ND (140)	-	ND (145)	-	-	ND (135)	-	-	9330	-	417	-	-	2010
Naphthalene	4000	-	1330	-	344	-	ND (145)	-	-	396	-	-	35100	-	675	-	-	5360
Phenanthrene	10000	-	5120	-	2070	-	564	-	-	3150	-	-	39500	-	5290	-	-	12700
Pyrene	1000000	-	4560	-	2260	-	509	-	-	2900	-	-	22600	-	5880	-	-	7840
VPH (µg/kg)																		
C9-C10 Aromatics	100000	-	ND (3900)	-	17300	-	8360	-	-	ND (2100)	-	-	18200	-	ND (3200)	-	-	ND (4350)
C5-C8 Aliphatics	100000	-	ND (3900)	-	8770	-	ND (3150)	-	-	ND (2100)	-	-	16800	-	ND (3200)	-	-	ND (4350)
C9-C12 Aliphatics	1000000	-	ND (3900)	-	ND (2650)	-	ND (3150)	-	-	ND (2100)	-	-	ND (3450)	-	ND (3200)	-	-	ND (4350)
EPH (µg/kg)																		
C9-C18 Aliphatics	1000000	-	23000	-	16700	-	ND (5500)	-	-	ND (4800)	-	-	265000	-	20100	-	-	31500
C19-C36 Aliphatics	3000000	-	83100	-	88200	-	21800	-	-	39800	-	-	4860000	-	143000	-	-	123000
C11-C22 Aromatics	1000000	-	212000	-	129000	-	ND (10500)	-	-	42500	-	-	5300000	-	294000	-	-	374000

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FORMER ENERGY INTERNATIONAL PARCEL
BOSTON, MASSACHUSETTS
FILE NO. 06318-502

Client Sample ID: Lab Sample ID: Sample Depth (ft): Date Sampled: Matrix:	MassDEP Reportable Concentration	HA104_6-8' M96256-22 6-8 12/1/2010 Fill	HA104_8-13.2' M96257-6 M96257-6A 8-13.2 12/1/2010 Fill	HA105_0-2' M96256-8 0-2 12/1/2010 Fill	HA105_0-4' M96257-3 M96257-3A 0-4 12/1/2010 Fill	HA105_2-4' M96256-9 2-4 12/1/2010 Fill	HA105_4-8' M96257-4 M96257-4A 4-8 12/1/2010 Fill	HA105_6-8' M96256-26 6-8 12/1/2010 Fill	HA106_0-2' M96256-1 0-2 12/1/2010 Fill	HA106_0-4' M96257-1 M96257-1A 0-4 12/1/2010 Fill	HA106_2-4' M96256-2 2-4 12/1/2010 Fill	HA106_6-8' M96256-4 6-8 12/1/2010 Fill	HA106_8-12.5' M96257-2 M96257-2A 8-12.5 11/30/2010 Fill	HA107_0-2' M96226-26 0-2 11/30/2010 Fill	HA107_0-4' M96225-7 M96225-7A 0-4 11/30/2010 Fill	HA107_2-4' M96226-27 2-4 11/30/2010 Fill	HA107_6-8' M96226-29 6-8 11/30/2010 Fill	HA107_8-12' M96225-8 M96225-8A 8-12 11/30/2010 Fill
Metals (mg/kg)																		
Antimony	20	-	1.2	-	0.88	-	ND (0.45)	-	-	ND (0.425)	-	-	7.6	-	1	-	-	ND (0.5)
Arsenic	20	-	9.5	-	8.4	-	7.2	-	-	7.8	-	-	16	-	11.2	-	-	7.8
Barium	1000	-	192	-	81.5	-	180	-	-	68.7	-	-	128	-	108	-	-	165
Beryllium	100	-	0.62	-	0.41	-	0.43	-	-	0.38	-	-	ND (0.195)	-	0.5	-	-	0.5
Cadmium	2	-	<0.36	-	0.48	-	ND (0.18)	-	-	ND (0.17)	-	-	0.75	-	0.45	-	-	ND (0.205)
Chromium	30	-	22.6	-	13.9	-	10.3	-	-	14.1	-	-	10.9	-	21.4	-	-	20.6
Lead	300	-	302	-	190	-	245	-	-	166	-	-	588	-	231	-	-	338
Mercury	20	-	1.8	-	1.4	-	0.87	-	-	0.44	-	-	1.6	-	1.4	-	-	1.8
Nickel	20	-	17.2	-	17.3	-	10.9	-	-	11.2	-	-	11.3	-	16.8	-	-	15.5
Selenium	400	-	ND (0.45)	-	ND (0.42)	-	ND (0.45)	-	-	ND (0.425)	-	-	3.9	-	1.3	-	-	ND (0.5)
Silver	100	-	ND (0.225)	-	ND (0.21)	-	ND (0.225)	-	-	ND (0.21)	-	-	1.3	-	0.81	-	-	0.77
Vanadium	600	-	32.6	-	20.8	-	17.8	-	-	19.9	-	-	16.8	-	27.5	-	-	27
Zinc	2500	-	178	-	182	-	128	-	-	88.7	-	-	372	-	214	-	-	198
TCLP Metals (mg/L)																		
Lead	NA	-	0.74	-	0.36	-	0.46	-	-	0.28	-	-	1.7	-	0.15	-	-	0.5
Polychlorinated Biphenyls (PCBs) (µg/kg)																		
Aroclor 1248	2000	ND (65)	-	ND (50)	-	132 a	-	ND (65)	ND (49.5)	-	ND (60)	ND (65)	-	ND (55)	-	ND (60)	ND (70)	-
Aroclor 1254	2000	ND (65)	-	ND (50)	-	379	-	ND (65)	ND (49.5)	-	ND (60)	ND (65)	-	276	-	567	ND (70)	-
Aroclor 1260	2000	ND (65)	-	ND (50)	-	308 a	-	ND (65)	ND (49.5)	-	147	ND (65)	-	ND (55)	-	463 a	ND (70)	-
Waste Characteristics																		
Corrosivity as pH	NA	-	7.8	-	8	-	7.7	-	-	8.4	-	-	7.5	-	7.8	-	-	7.7
Cyanide Reactivity (mg/kg)	NA	-	<1.9	-	<1.7	-	<1.8	-	-	<1.7	-	-	<1.9	-	<1.7	-	-	<2.0
Ignitability (Flashpoint) (deg F)	NA	-	>230	-	>230	-	>230	-	-	>230	-	-	>230	-	>230	-	-	>230
Redox Potential Vs H2	NA	-	371 ^b	-	364 ^b	-	387 ^b	-	-	446 ^b	-	-	322 ^b	-	441 ^b	-	-	426 ^b
Solids, Percent	NA	71.8	80.1	95.7	89.1	87.5	84.9	77.1	94.9	90.8	81.6	79.3	79.7	92.7	88.4	85	68.6	73.4
Sulfide Reactivity (mg/kg)	NA	-	<62	-	<56	-	<59	-	-	<55	-	-	<63	-	<57	-	-	<68

Notes and Abbreviations:
^a Elevated RL due to dilution required for matrix interference.
^b Analysis requested after recommended holding time.
Only compounds detected on the dates indicated are included in this table.
ND (110): Compound not detected; value in parentheses is one half the laboratory reporting limit.
< : Compound not detected; value is the laboratory reporting limit.
- : Analysis not conducted.
Bold values indicate an exceedance of the MassDEP Reportable Concentration in Soil (RCS-1).
VOCs: Volatile Organic Compounds by SW846 8260B
SVOCs: Semi-volatile Organic Compounds by SW846 8270C
VPH: Volatile Petroleum Hydrocarbons by MADEP VPH REV 1.1
EPH: Extractable Petroleum Hydrocarbons by MADEP EPH REV 1
^a Estimated value due to the presence of other Aroclor pattern.
PCBs analyzed by SW846 EPA Method 8082

TABLE II
SUMMARY OF SOIL QUALITY DATA
FORMER ENERGY INTERNATIONAL PARCEL
BOSTON, MASSACHUSETTS
FILE NO. 06318-502

Client Sample ID: Lab Sample ID: Sample Depth (ft): Date Sampled: Matrix:	MassDEP Reportable Concentration	HA108_0-2' M96226-19	HA108_0-4' M96225-5 M96225-5A	HA108_2-4' M96226-20	HA108_4-8' M96225-6 M96225-6A	HA108_6-8' M96226-22	HA109_0-2' M96226-10	HA109_0-4' M96225-3 M96225-3A	HA109_2-4' M96226-11	HA109_6-8' M96226-13	HA109_8-12' M96225-4 M96225-4A	HA110_0-2' M96226-1	HA110_0-4' M96225-1 M96225-1A	HA110_2-4' M96226-2	HA110_4-8' M96225-2 M96225-2A	HA110_6-8' M96226-4	HA111_0-2' M96200-19	HA111_0-4' M96199-5 M96199-5A
	(RCS-1)	0-2 11/30/2010 Fill	0-4 11/30/2010 Fill	2-4 11/30/2010 Fill	4-8 11/30/2010 Fill	6-8 11/30/2010 Fill	0-2 11/30/2010 Fill	0-4 11/30/2010 Fill	2-4 11/30/2010 Fill	6-8 11/30/2010 Fill	8-12 11/30/2010 Fill	0-2 11/30/2010 Fill	0-4 11/30/2010 Fill	2-4 11/30/2010 Fill	4-8 11/30/2010 Fill	6-8 11/30/2010 Fill	0-2 11/29/2010 Fill	0-4 11/29/2010 Fill
VOCs (µg/kg)																		
Benzene	2000	-	31	-	ND (18.5)	-	-	74.5	-	-	ND (16)	-	35.5	-	ND (16.5)	-	-	ND (14)
Naphthalene	4000	-	665	-	ND (185)	-	-	2080	-	-	1540	-	357	-	ND (165)	-	-	ND (140)
Toluene	30000	-	ND (145)	-	ND (185)	-	-	ND (165)	-	-	ND (160)	-	ND (140)	-	ND (165)	-	-	ND (140)
1,2,4-Trimethylbenzene	1000000	-	ND (145)	-	ND (185)	-	-	ND (165)	-	-	ND (160)	-	ND (140)	-	ND (165)	-	-	ND (140)
Xylene (total)	300000	-	ND (60)	-	ND (75)	-	-	154	-	-	ND (65)	-	120	-	ND (65)	-	-	ND (55)
SVOCs (µg/kg)																		
Benzoic acid	1000000	-	ND (280)	-	ND (295)	-	-	ND (2700)	-	-	ND (285)	-	685	-	ND (300)	-	-	ND (275)
3&4-Methylphenol	500000	-	ND (280)	-	ND (295)	-	-	ND (2700)	-	-	ND (285)	-	ND (285)	-	ND (300)	-	-	ND (275)
Acenaphthene	4000	-	297	-	1040	-	-	5850	-	-	468	-	2130	-	1040	-	-	ND (140)
Acenaphthylene	1000	-	375	-	ND (145)	-	-	ND (1350)	-	-	340	-	980	-	625	-	-	ND (140)
Anthracene	1000000	-	996	-	ND (145)	-	-	16000	-	-	1140	-	5630	-	3470	-	-	536
Benzo(a)anthracene	7000	-	2620	-	ND (145)	-	-	42700	-	-	2440	-	16800	-	6020	-	-	1660
Benzo(a)pyrene	2000	-	2160	-	ND (145)	-	-	27400	-	-	1900	-	9720	-	2510	-	-	1390
Benzo(b)fluoranthene	7000	-	2380	-	ND (145)	-	-	20900	-	-	1930	-	11000	-	3660	-	-	1310
Benzo(g,h,i)perylene	1000000	-	923	-	ND (145)	-	-	9820	-	-	898	-	3880	-	1280	-	-	672
Benzo(k)fluoranthene	70000	-	1910	-	ND (145)	-	-	14800	-	-	1560	-	5560	-	3470	-	-	1130
Chrysene	70000	-	2780	-	ND (145)	-	-	50500	-	-	2550	-	16600	-	5900	-	-	1760
Dibenzo(a,h)anthracene	700	-	438	-	ND (145)	-	-	5730	-	-	533	-	2380	-	942	-	-	314
Dibenzofuran	100000	-	ND (140)	-	ND (145)	-	-	ND (1350)	-	-	474	-	1630	-	904	-	-	ND (140)
bis(2-Ethylhexyl)phthalate	200000	-	ND (140)	-	ND (145)	-	-	ND (1350)	-	-	ND (145)	-	ND (140)	-	ND (150)	-	-	ND (140)
Fluoranthene	1000000	-	4500	-	785	-	-	47700	-	-	4240	-	31500	-	10500	-	-	2940
Fluorene	1000000	-	354	-	ND (145)	-	-	6230	-	-	582	-	2410	-	1630	-	-	ND (140)
Indeno(1,2,3-cd)pyrene	7000	-	1060	-	ND (145)	-	-	9810	-	-	980	-	4540	-	1520	-	-	735
2-Methylnaphthalene	700	-	351	-	ND (145)	-	-	ND (1350)	-	-	565	-	1010	-	443	-	-	ND (140)
Naphthalene	4000	-	549	-	563	-	-	ND (1350)	-	-	942	-	2530	-	1440	-	-	ND (140)
Phenanthrene	10000	-	3080	-	832	-	-	57700	-	-	3520	-	23200	-	8360	-	-	2100
Pyrene	1000000	-	3230	-	525	-	-	55500	-	-	3440	-	27200	-	7950	-	-	2330
VPH (µg/kg)																		
C9-C10 Aromatics	100000	-	ND (3150)	-	ND (4050)	-	-	ND (36000)	-	-	ND (3500)	-	ND (3050)	-	ND (3600)	-	-	ND (3000)
C5-C8 Aliphatics	100000	-	ND (3150)	-	ND (4050)	-	-	ND (36000)	-	-	ND (3500)	-	ND (3050)	-	ND (3600)	-	-	ND (3000)
C9-C12 Aliphatics	1000000	-	ND (3150)	-	ND (4050)	-	-	ND (36000)	-	-	ND (3500)	-	ND (3050)	-	ND (3600)	-	-	ND (3000)
EPH (µg/kg)																		
C9-C18 Aliphatics	1000000	-	22300	-	13700	-	-	15400	-	-	24800	-	21000	-	27200	-	-	ND (4700)
C19-C36 Aliphatics	3000000	-	111000	-	ND (5500)	-	-	255000	-	-	107000	-	102000	-	106000	-	-	12000
C11-C22 Aromatics	1000000	-	135000	-	35800	-	-	1130000	-	-	134000	-	351000	-	154000	-	-	46900

TABLE II
SUMMARY OF SOIL QUALITY DATA
FORMER ENERGY INTERNATIONAL PARCEL
BOSTON, MASSACHUSETTS
FILE NO. 06318-502

Client Sample ID: Lab Sample ID: Sample Depth (ft): Date Sampled: Matrix:	MassDEP Reportable Concentration	HA108_0-2' M96226-19	HA108_0-4' M96225-5 M96225-5A	HA108_2-4' M96226-20	HA108_4-8' M96225-6 M96225-6A	HA108_6-8' M96226-22	HA109_0-2' M96226-10	HA109_0-4' M96225-3 M96225-3A	HA109_2-4' M96226-11	HA109_6-8' M96226-13	HA109_8-12' M96225-4 M96225-4A	HA110_0-2' M96226-1	HA110_0-4' M96225-1 M96225-1A	HA110_2-4' M96226-2	HA110_4-8' M96225-2 M96225-2A	HA110_6-8' M96226-4	HA111_0-2' M96200-19	HA111_0-4' M96199-5 M96199-5A
	(RCS-1)	0-2 11/30/2010 Fill	0-4 11/30/2010 Fill	2-4 11/30/2010 Fill	4-8 11/30/2010 Fill	6-8 11/30/2010 Fill	0-2 11/30/2010 Fill	0-4 11/30/2010 Fill	2-4 11/30/2010 Fill	6-8 11/30/2010 Fill	8-12 11/30/2010 Fill	0-2 11/30/2010 Fill	0-4 11/30/2010 Fill	2-4 11/30/2010 Fill	4-8 11/30/2010 Fill	6-8 11/30/2010 Fill	0-2 11/29/2010 Fill	0-4 11/29/2010 Fill
Metals (mg/kg)																		
Antimony	20	-	0.99	-	1.3	-	-	ND (0.415)	-	-	3.3	-	ND (0.445)	-	ND (0.43)	-	-	2.4
Arsenic	20	-	8.3	-	7.5	-	-	7.5	-	-	15.5	-	11.7	-	14.1	-	-	18.9
Barium	1000	-	81.4	-	97	-	-	106	-	-	144	-	134	-	147	-	-	198
Beryllium	100	-	0.47	-	0.39	-	-	0.48	-	-	0.47	-	0.45	-	0.47	-	-	0.65
Cadmium	2	-	0.57	-	ND (0.175)	-	-	1.5	-	-	1.1	-	0.51	-	0.65	-	-	0.54
Chromium	30	-	15.8	-	7.9	-	-	14.3	-	-	15.8	-	14.8	-	17.5	-	-	17.6
Lead	300	-	277	-	229	-	-	288	-	-	689	-	150	-	319	-	-	912
Mercury	20	-	1.1	-	0.59	-	-	1.2	-	-	10.7	-	1.3	-	4.8	-	-	0.53
Nickel	20	-	13.7	-	10.8	-	-	12.3	-	-	15.4	-	18.8	-	20.6	-	-	15.4
Selenium	400	-	ND (0.43)	-	1.4	-	-	ND (0.415)	-	-	1.5	-	ND (0.445)	-	0.95	-	-	0.97
Silver	100	-	ND (0.215)	-	ND (0.215)	-	-	ND (0.21)	-	-	1	-	ND (0.22)	-	0.73	-	-	ND (0.21)
Vanadium	600	-	25.6	-	14.8	-	-	25.7	-	-	23.3	-	21.3	-	27	-	-	24.6
Zinc	2500	-	188	-	169	-	-	267	-	-	353	-	167	-	237	-	-	145
TCLP Metals (mg/L)																		
Lead	NA	-	0.42	-	0.88	-	-	0.012	-	-	2.5	-	0.015	-	0.94	-	-	0.56
Polychlorinated Biphenyls (PCBs) (µg/kg)																		
Aroclor 1248	2000	ND (60)	-	ND (55)	-	ND (60)	ND (55)	-	ND (55)	ND (55)	-	ND (60)	-	ND (55)	-	ND (55)	1140 E a	-
Aroclor 1254	2000	242 a	-	244	-	ND (60)	ND (55)	-	341 a	115	-	172	-	549	-	ND (55)	4470 a	-
Aroclor 1260	2000	310 a	-	ND (55)	-	ND (60)	ND (55)	-	353	ND (55)	-	136 a	-	457 a	-	ND (55)	6020	-
Waste Characteristics																		
Corrosivity as pH	NA	-	8	-	7.8	-	-	10.4	-	-	7.6	-	10.7	-	8.7	-	-	7.7
Cyanide Reactivity (mg/kg)	NA	-	<1.7	-	<1.8	-	-	<1.7	-	-	<1.8	-	<1.7	-	<1.8	-	-	<1.7
Ignitability (Flashpoint) (deg F)	NA	-	>230	-	>230	-	-	>230	-	-	>230	-	>230	-	>230	-	-	>230
Redox Potential Vs H2	NA	-	425 ^b	-	427 ^b	-	-	383 ^b	-	-	407 ^b	-	342 ^b	-	385 ^b	-	-	402 ^b
Solids, Percent	NA	85.1	87.4	85	83.3	84.3	87.9	88.8	83.6	87	83.8	85.1	87.5	89	83.5	84.9	87.7	89.1
Sulfide Reactivity (mg/kg)	NA	-	<57	-	<60	-	-	<56	-	-	<60	-	<57	-	<60	-	-	<56

Notes and Abbreviations:
^a Elevated RL due to dilution required for matrix interference.
^b Analysis requested after recommended holding time.
Only compounds detected on the dates indicated are included in this table.
ND (110): Compound not detected; value in parentheses is one half the laboratory reporting limit.
< : Compound not detected; value is the laboratory reporting limit.
- : Analysis not conducted.
Bold values indicate an exceedance of the MassDEP Reportable Concentration in Soil (RCS-1).
VOCs: Volatile Organic Compounds by SW846 8260B
SVOCs: Semi-volatile Organic Compounds by SW846 8270C
VPH: Volatile Petroleum Hydrocarbons by MADEP VPH REV 1.1
EPH: Extractable Petroleum Hydrocarbons by MADEP EPH REV 1
^a Estimated value due to the presence of other Aroclor pattern.
PCBs analyzed by SW846 EPA Method 8082

TABLE II
SUMMARY OF SOIL QUALITY DATA
FORMER ENERGY INTERNATIONAL PARCEL
BOSTON, MASSACHUSETTS
FILE NO. 06318-502

Client Sample ID:	MassDEP Reportable Concentration	HA111_2-4'	HA111_6-8'	HA111_8-10'	HA111_8-12'	HA111_10-12'	HA111_12-14'	HA111_14-16'	HA111_16-18'	HA112_0-2'	HA112_0-4'	HA112_2-4'	HA112_4-8'	HA112_6-8'	HA112_8-10'	HA112_10-12'	HA112_12-14'	HA112_14-16.5'	HA112_16.5-18'
Lab Sample ID:		M96200-20	M96200-22	M96200-23	M96199-6	M96200-24	M96200-25	M96200-26	M96200-27	M96200-1	M96199-1 M96199-1A	M96200-2	M96199-2 M96199-2A	M96200-4	M96200-5	M96200-6	M96200-10	M96200-7	M96200-8
Sample Depth (ft):		2-4	6-8	8-10	8-12	10-12	12-14	14-16	16-18	0-2	0-4	2-4	4-8	6-8	8-10	10-12	12-14	14-16.5	16.5-18
Date Sampled:	(RCS-1)	11/29/2010	11/29/2010	11/29/2010	11/29/2010	11/29/2010	11/29/2010	11/29/2010	11/29/2010	11/29/2010	11/29/2010	11/29/2010	11/29/2010	11/29/2010	11/29/2010	11/29/2010	11/29/2010	11/29/2010	11/29/2010
Matrix:		Fill	Fill	Fill	Fill	Fill	Fill	Fill	Organics	Fill	Fill	Fill	Fill	Fill	Fill	Fill	Fill	Fill	Organics
VOCs (µg/kg)																			
Benzene	2000	-	-	-	ND (24)	-	-	-	-	-	ND (13)	-	ND (18.5)	-	-	-	-	-	-
Naphthalene	4000	-	-	-	1510	-	-	-	-	-	385	-	ND (185)	-	-	-	-	-	-
Toluene	30000	-	-	-	ND (240)	-	-	-	-	-	ND (130)	-	ND (185)	-	-	-	-	-	-
1,2,4-Trimethylbenzene	1000000	-	-	-	ND (240)	-	-	-	-	-	ND (130)	-	ND (185)	-	-	-	-	-	-
Xylene (total)	300000	-	-	-	ND (95)	-	-	-	-	-	ND (55)	-	ND (75)	-	-	-	-	-	-
SVOCs (µg/kg)																			
Benzoic acid	1000000	-	-	-	ND (365)	-	-	-	-	-	634	-	771	-	-	-	-	-	-
3&4-Methylphenol	500000	-	-	-	850	-	-	-	-	-	ND (260)	-	ND (295)	-	-	-	-	-	-
Acenaphthene	4000	-	-	-	1840	-	-	-	-	-	705	-	829	-	-	-	-	-	-
Acenaphthylene	1000	-	-	-	651	-	-	-	-	-	1580	-	724	-	-	-	-	-	-
Anthracene	1000000	-	-	-	4850	-	-	-	-	-	3700	-	2610	-	-	-	-	-	-
Benzo(a)anthracene	7000	-	-	-	7650	-	-	-	-	-	9030	-	4970	-	-	-	-	-	-
Benzo(a)pyrene	2000	-	-	-	3890	-	-	-	-	-	6950	-	3930	-	-	-	-	-	-
Benzo(b)fluoranthene	7000	-	-	-	3490	-	-	-	-	-	7450	-	3690	-	-	-	-	-	-
Benzo(g,h,i)perylene	1000000	-	-	-	1410	-	-	-	-	-	3870	-	2000	-	-	-	-	-	-
Benzo(k)fluoranthene	70000	-	-	-	2970	-	-	-	-	-	4280	-	3210	-	-	-	-	-	-
Chrysene	70000	-	-	-	7470	-	-	-	-	-	9170	-	5140	-	-	-	-	-	-
Dibenzo(a,h)anthracene	700	-	-	-	696	-	-	-	-	-	2260	-	1120	-	-	-	-	-	-
Dibenzofuran	100000	-	-	-	1920	-	-	-	-	-	1150	-	986	-	-	-	-	-	-
bis(2-Ethylhexyl)phthalate	200000	-	-	-	409	-	-	-	-	-	ND (130)	-	ND (145)	-	-	-	-	-	-
Fluoranthene	1000000	-	-	-	12100	-	-	-	-	-	22000	-	8940	-	-	-	-	-	-
Fluorene	1000000	-	-	-	3130	-	-	-	-	-	1190	-	1240	-	-	-	-	-	-
Indeno(1,2,3-cd)pyrene	7000	-	-	-	1600	-	-	-	-	-	4260	-	2140	-	-	-	-	-	-
2-Methylnaphthalene	700	-	-	-	1270	-	-	-	-	-	318	-	501	-	-	-	-	-	-
Naphthalene	4000	-	-	-	6010	-	-	-	-	-	628	-	954	-	-	-	-	-	-
Phenanthrene	10000	-	-	-	10400	-	-	-	-	-	18400	-	7940	-	-	-	-	-	-
Pyrene	1000000	-	-	-	12100	-	-	-	-	-	19500	-	7230	-	-	-	-	-	-
VPH (µg/kg)																			
C9-C10 Aromatics	100000	-	-	-	ND (5000)	-	-	-	-	-	ND (2900)	-	ND (4000)	-	-	-	-	-	-
C5-C8 Aliphatics	100000	-	-	-	ND (5000)	-	-	-	-	-	ND (2900)	-	10300	-	-	-	-	-	-
C9-C12 Aliphatics	1000000	-	-	-	ND (5000)	-	-	-	-	-	ND (2900)	-	ND (4000)	-	-	-	-	-	-
EPH (µg/kg)																			
C9-C18 Aliphatics	1000000	-	-	-	54500	-	-	-	-	-	12100	-	31100	-	-	-	-	-	-
C19-C36 Aliphatics	3000000	-	-	-	143000	-	-	-	-	-	58200	-	77700	-	-	-	-	-	-
C11-C22 Aromatics	1000000	-	-	-	161000	-	-	-	-	-	325000	-	74100	-	-	-	-	-	-

TABLE II
SUMMARY OF SOIL QUALITY DATA
FORMER ENERGY INTERNATIONAL PARCEL
BOSTON, MASSACHUSETTS
FILE NO. 06318-502

Client Sample ID: Lab Sample ID: Sample Depth (ft): Date Sampled: Matrix:	MassDEP Reportable Concentration (RCS-1)	HA111_2-4' M96200-20	HA111_6-8' M96200-22	HA111_8-10' M96200-23	HA111_8-12' M96199-6	HA111_10-12' M96200-24	HA111_12-14' M96200-25	HA111_14-16' M96200-26	HA111_16-18' M96200-27	HA112_0-2' M96200-1	HA112_0-4' M96199-1 M96199-1A	HA112_2-4' M96200-2	HA112_4-8' M96199-2 M96199-2A	HA112_6-8' M96200-4	HA112_8-10' M96200-5	HA112_10-12' M96200-6	HA112_12-14' M96200-10	HA112_14-16.5' M96200-7	HA112_16.5-18' M96200-8
		2-4 11/29/2010 Fill	6-8 11/29/2010 Fill	8-10 11/29/2010 Fill	8-12 11/29/2010 Fill	10-12 11/29/2010 Fill	12-14 11/29/2010 Fill	14-16 11/29/2010 Fill	16-18 11/29/2010 Organics	0-2 11/29/2010 Fill	0-4 11/29/2010 Fill	2-4 11/29/2010 Fill	4-8 11/29/2010 Fill	6-8 11/29/2010 Fill	8-10 11/29/2010 Fill	10-12 11/29/2010 Fill	12-14 11/29/2010 Fill	14-16.5 11/29/2010 Fill	16.5-18 11/29/2010 Organics
Metals (mg/kg)																			
Antimony	20	-	-	-	ND (0.55)	-	-	-	-	-	ND (0.405)	-	ND (0.435)	-	-	-	-	-	-
Arsenic	20	-	-	-	6.2	-	-	-	-	-	6.9	-	12.4	-	-	-	-	-	-
Barium	1000	-	-	-	55.8	-	-	-	-	-	71.4	-	109	-	-	-	-	-	-
Beryllium	100	-	-	-	0.56	-	-	-	-	-	0.45	-	0.5	-	-	-	-	-	-
Cadmium	2	-	-	-	ND (0.22)	-	-	-	-	-	0.66	-	0.78	-	-	-	-	-	-
Chromium	30	-	-	-	22	-	-	-	-	-	8.9	-	17.3	-	-	-	-	-	-
Lead	300	-	-	-	82.8	-	-	-	-	-	722	-	335	-	-	-	-	-	-
Mercury	20	-	-	-	1.4	-	-	-	-	-	0.69	-	0.98	-	-	-	-	-	-
Nickel	20	-	-	-	14.1	-	-	-	-	-	9.7	-	17.1	-	-	-	-	-	-
Selenium	400	-	-	-	ND (0.55)	-	-	-	-	-	ND (0.405)	-	2	-	-	-	-	-	-
Silver	100	-	-	-	ND (0.275)	-	-	-	-	-	ND (0.205)	-	ND (0.215)	-	-	-	-	-	-
Vanadium	600	-	-	-	28.3	-	-	-	-	-	17	-	26.9	-	-	-	-	-	-
Zinc	2500	-	-	-	70.3	-	-	-	-	-	172	-	682	-	-	-	-	-	-
TCLP Metals (mg/L)																			
Lead	NA	-	-	-	-	-	-	-	-	-	1.8	-	0.56	-	-	-	-	-	-
Polychlorinated Biphenyls (PCBs) (µg/kg)																			
Aroclor 1248	2000	ND (60)	ND (70)	ND (75)	-	ND (80)	ND (70)	ND (80)	ND (80)	ND (55)	-	ND (50)	-	ND (55)	ND (55)	ND (65)	ND (60)	ND (60)	ND (75)
Aroclor 1254	2000	ND (60)	ND (70)	ND (75)	-	ND (80)	ND (70)	ND (80)	ND (80)	ND (55)	-	ND (50)	-	ND (55)	ND (55)	ND (65)	ND (60)	ND (60)	ND (75)
Aroclor 1260	2000	ND (60)	ND (70)	ND (75)	-	ND (80)	ND (70)	ND (80)	ND (80)	ND (55)	-	ND (50)	-	ND (55)	ND (55)	ND (65)	ND (60)	ND (60)	ND (75)
Waste Characteristics																			
Corrosivity as pH	NA	-	-	-	8	-	-	-	-	-	6.9	-	7.4	-	-	-	-	-	-
Cyanide Reactivity (mg/kg)	NA	-	-	-	<2.2	-	-	-	-	-	<1.6	-	<1.8	-	-	-	-	-	-
Ignitability (Flashpoint) (deg F)	NA	-	-	-	>230	-	-	-	-	-	>230	-	>230	-	-	-	-	-	-
Redox Potential Vs H2	NA	-	-	-	326 ^b	-	-	-	-	-	380 ^b	-	384 ^b	-	-	-	-	-	-
Solids, Percent	NA	85.8	70.2	63.9	67.3	63	71.6	61.7	60.2	90.9	91.9	91.5	82.7	82.8	85.3	70.9	79.8	79.4	63.2
Sulfide Reactivity (mg/kg)	NA	-	-	-	<74	-	-	-	-	-	<54	-	<60	-	-	-	-	-	-

Notes and Abbreviations:
^a Elevated RL due to dilution required for matrix interference.
^b Analysis requested after recommended holding time.
Only compounds detected on the dates indicated are included in this table.
ND (110): Compound not detected; value in parentheses is one half the laboratory reporting limit.
< : Compound not detected; value is the laboratory reporting limit.
- : Analysis not conducted.
Bold values indicate an exceedance of the MassDEP Reportable Concentration in Soil (RCS-1).
VOCs: Volatile Organic Compounds by SW846 8260B
SVOCs: Semi-volatile Organic Compounds by SW846 8270C
VPH: Volatile Petroleum Hydrocarbons by MADEP VPH REV 1.1
EPH: Extractable Petroleum Hydrocarbons by MADEP EPH REV 1
^a Estimated value due to the presence of other Aroclor pattern.
PCBs analyzed by SW846 EPA Method 8082

TABLE II
SUMMARY OF SOIL QUALITY DATA
FORMER ENERGY INTERNATIONAL PARCEL
BOSTON, MASSACHUSETTS
FILE NO. 06318-502

Client Sample ID: Lab Sample ID: Sample Depth (ft): Date Sampled: Matrix:	MassDEP Reportable Concentration (RCS-1)	HA113_0-2' M96200-9 0-2 11/29/2010 Fill	HA113_0-4' M96199-3 M96199-3A 0-4 11/29/2010 Fill	HA113_2-4' M96200-11 2-4 11/29/2010 Fill	HA113_6-8' M96200-13 6-8 11/29/2010 Fill	HA113_8-10' M96200-14 8-10 11/29/2010 Fill	HA113_10-12' M96200-15 10-12 11/29/2010 Fill	HA113_12-14' M96200-16 12-14 11/29/2010 Fill	HA113_12-15.5' M96199-4 12-15.5 11/29/2010 Fill	HA113_14-15.5' M96200-17 14-15.5 11/29/2010 Fill	HA113_15.5-18' M96200-18 15.5-18 11/29/2010 Organics	HA-201 S1 L1203640-01 0-0.5 3/2/2012 Fill	HA-201 S1B L1203640-06 Dup of B201 S1 0-0.5 3/2/2012 Fill	HA-201 S2 L1203640-02 1-2 3/2/2012 Fill	HA-201 S3 L1203640-03 2-3 3/2/2012 Fill	HA-202 S1 L1203630-01 0-0.5 3/2/2012 Fill	HA-202 S2 L1203630-02 1-2 3/2/2012 Fill	HA-202 S3 L1203630-03 2-3 3/2/2012 Fill
VOCs (µg/kg)																		
Benzene	2000	-	ND (17.5)	-	-	-	-	-	ND (22)	-	-	-	-	-	-	-	-	-
Naphthalene	4000	-	ND (175)	-	-	-	-	-	1860	-	-	-	-	-	-	-	-	-
Toluene	30000	-	ND (175)	-	-	-	-	-	ND (220)	-	-	-	-	-	-	-	-	-
1,2,4-Trimethylbenzene	1000000	-	ND (175)	-	-	-	-	-	ND (220)	-	-	-	-	-	-	-	-	-
Xylene (total)	300000	-	ND (70)	-	-	-	-	-	ND (90)	-	-	-	-	-	-	-	-	-
SVOCs (µg/kg)																		
Benzoic acid	1000000	-	ND (290)	-	-	-	-	-	ND (310)	-	-	-	-	-	-	-	-	-
3&4-Methylphenol	500000	-	ND (290)	-	-	-	-	-	ND (310)	-	-	-	-	-	-	-	-	-
Acenaphthene	4000	-	654	-	-	-	-	-	ND (155)	-	-	-	-	-	-	-	-	-
Acenaphthylene	1000	-	588	-	-	-	-	-	ND (155)	-	-	-	-	-	-	-	-	-
Anthracene	1000000	-	1860	-	-	-	-	-	527	-	-	-	-	-	-	-	-	-
Benzo(a)anthracene	7000	-	3810	-	-	-	-	-	750	-	-	-	-	-	-	-	-	-
Benzo(a)pyrene	2000	-	3060	-	-	-	-	-	554	-	-	-	-	-	-	-	-	-
Benzo(b)fluoranthene	7000	-	3230	-	-	-	-	-	464	-	-	-	-	-	-	-	-	-
Benzo(g,h,i)perylene	1000000	-	1560	-	-	-	-	-	ND (155)	-	-	-	-	-	-	-	-	-
Benzo(k)fluoranthene	70000	-	2650	-	-	-	-	-	456	-	-	-	-	-	-	-	-	-
Chrysene	70000	-	4280	-	-	-	-	-	784	-	-	-	-	-	-	-	-	-
Dibenzo(a,h)anthracene	700	-	664	-	-	-	-	-	ND (155)	-	-	-	-	-	-	-	-	-
Dibenzofuran	100000	-	685	-	-	-	-	-	ND (155)	-	-	-	-	-	-	-	-	-
bis(2-Ethylhexyl)phthalate	200000	-	ND (145)	-	-	-	-	-	ND (155)	-	-	-	-	-	-	-	-	-
Fluoranthene	1000000	-	7520	-	-	-	-	-	1490	-	-	-	-	-	-	-	-	-
Fluorene	1000000	-	804	-	-	-	-	-	357	-	-	-	-	-	-	-	-	-
Indeno(1,2,3-cd)pyrene	7000	-	1750	-	-	-	-	-	ND (155)	-	-	-	-	-	-	-	-	-
2-Methylnaphthalene	700	-	346	-	-	-	-	-	ND (155)	-	-	-	-	-	-	-	-	-
Naphthalene	4000	-	581	-	-	-	-	-	1710	-	-	-	-	-	-	-	-	-
Phenanthrene	10000	-	6490	-	-	-	-	-	1330	-	-	-	-	-	-	-	-	-
Pyrene	1000000	-	5480	-	-	-	-	-	1070	-	-	-	-	-	-	-	-	-
VPH (µg/kg)																		
C9-C10 Aromatics	100000	-	ND (3800)	-	-	-	-	-	ND (4750)	-	-	-	-	-	-	-	-	-
C5-C8 Aliphatics	100000	-	ND (3800)	-	-	-	-	-	ND (4750)	-	-	-	-	-	-	-	-	-
C9-C12 Aliphatics	1000000	-	ND (3800)	-	-	-	-	-	ND (4750)	-	-	-	-	-	-	-	-	-
EPH (µg/kg)																		
C9-C18 Aliphatics	1000000	-	102000	-	-	-	-	-	23200	-	-	-	-	-	-	-	-	-
C19-C36 Aliphatics	3000000	-	281000	-	-	-	-	-	63100	-	-	-	-	-	-	-	-	-
C11-C22 Aromatics	1000000	-	157000	-	-	-	-	-	122000	-	-	-	-	-	-	-	-	-

TABLE II
SUMMARY OF SOIL QUALITY DATA
FORMER ENERGY INTERNATIONAL PARCEL
BOSTON, MASSACHUSETTS
FILE NO. 06318-502

Client Sample ID: Lab Sample ID: Sample Depth (ft): Date Sampled: Matrix:	MassDEP Reportable Concentration (RCS-1)	HA113_0-2' M96200-9 0-2 11/29/2010 Fill	HA113_0-4' M96199-3 M96199-3A 0-4 11/29/2010 Fill	HA113_2-4' M96200-11 2-4 11/29/2010 Fill	HA113_6-8' M96200-13 6-8 11/29/2010 Fill	HA113_8-10' M96200-14 8-10 11/29/2010 Fill	HA113_10-12 M96200-15 10-12 11/29/2010 Fill	HA113_12-14' M96200-16 12-14 11/29/2010 Fill	HA113_12-15.5' M96199-4 12-15.5 11/29/2010 Fill	HA113_14-15.5' M96200-17 14-15.5 11/29/2010 Fill	HA113_15.5-18' M96200-18 15.5-18 11/29/2010 Organics	HA-201 S1 L1203640-01 0-0.5 3/2/2012 Fill	HA-201 S1B L1203640-06 Dup of B201 S1 0-0.5 3/2/2012 Fill	HA-201 S2 L1203640-02 1-2 3/2/2012 Fill	HA-201 S3 L1203640-03 2-3 3/2/2012 Fill	HA-202 S1 L1203630-01 0-0.5 3/2/2012 Fill	HA-202 S2 L1203630-02 1-2 3/2/2012 Fill	HA-202 S3 L1203630-03 2-3 3/2/2012 Fill
Metals (mg/kg)																		
Antimony	20	-	1.6	-	-	-	-	-	ND (0.45)	-	-	-	-	-	-	-	-	-
Arsenic	20	-	8.5	-	-	-	-	-	5	-	-	-	-	-	-	-	-	-
Barium	1000	-	91.3	-	-	-	-	-	29.8	-	-	-	-	-	-	-	-	-
Beryllium	100	-	0.45	-	-	-	-	-	0.46	-	-	-	-	-	-	-	-	-
Cadmium	2	-	3.3	-	-	-	-	-	ND (0.18)	-	-	-	-	-	-	-	-	-
Chromium	30	-	18.8	-	-	-	-	-	18.5	-	-	-	-	-	-	-	-	-
Lead	300	-	296	-	-	-	-	-	40.4	-	-	-	-	-	-	-	-	-
Mercury	20	-	1	-	-	-	-	-	0.52	-	-	-	-	-	-	-	-	-
Nickel	20	-	21.6	-	-	-	-	-	11.3	-	-	-	-	-	-	-	-	-
Selenium	400	-	1.1	-	-	-	-	-	ND (0.45)	-	-	-	-	-	-	-	-	-
Silver	100	-	ND (0.225)	-	-	-	-	-	ND (0.225)	-	-	-	-	-	-	-	-	-
Vanadium	600	-	29.2	-	-	-	-	-	23.6	-	-	-	-	-	-	-	-	-
Zinc	2500	-	645	-	-	-	-	-	46	-	-	-	-	-	-	-	-	-
TCLP Metals (mg/L)																		
Lead	NA	-	0.28	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Polychlorinated Biphenyls (PCBs) (µg/kg)																		
Aroclor 1248	2000	ND (60)	-	ND (55)	ND (60)	ND (65)	ND (65)	ND (65)	-	ND (65)	ND (80)	ND (19)	ND (18.8)	ND (19.7)	ND (21.2)	158	233	ND (20.5)
Aroclor 1254	2000	33700	-	ND (55)	ND (60)	396	ND (65)	643	-	ND (65)	ND (80)	121	238	118	ND (21.2)	190	319	ND (20.5)
Aroclor 1260	2000	13100 a	-	ND (55)	ND (60)	285 a	ND (65)	246 a	-	ND (65)	ND (80)	104	161	103	ND (21.2)	125	177	ND (20.5)
Waste Characteristics																		
Corrosivity as pH	NA	-	7.2	-	-	-	-	-	8.1	-	-	-	-	-	-	-	-	-
Cyanide Reactivity (mg/kg)	NA	-	<1.8	-	-	-	-	-	<1.9	-	-	-	-	-	-	-	-	-
Ignitability (Flashpoint) (deg F)	NA	-	>230	-	-	-	-	-	>230	-	-	-	-	-	-	-	-	-
Redox Potential Vs H2	NA	-	391 b	-	-	-	-	-	361 b	-	-	-	-	-	-	-	-	-
Solids, Percent	NA	80.9	83.5	86.7	81	73.5	73.8	76.8	79.5	76.8	60.6	84	86	84	78	94	85	78
Sulfide Reactivity (mg/kg)	NA	-	<60	-	-	-	-	-	<63	-	-	-	-	-	-	-	-	-

Notes and Abbreviations:
a Elevated RL due to dilution required for matrix interference.
b Analysis requested after recommended holding time.
Only compounds detected on the dates indicated are included in this table.
ND (110): Compound not detected; value in parentheses is one half the laboratory reporting limit.
< : Compound not detected; value is the laboratory reporting limit.
- : Analysis not conducted.
Bold values indicate an exceedance of the MassDEP Reportable Concentration in Soil (RCS-1).
VOCs: Volatile Organic Compounds by SW846 8260B
SVOCs: Semi-volatile Organic Compounds by SW846 8270C
VPH: Volatile Petroleum Hydrocarbons by MADEP VPH REV 1.1
EPH: Extractable Petroleum Hydrocarbons by MADEP EPH REV 1
a Estimated value due to the presence of other Aroclor pattern.
PCBs analyzed by SW846 EPA Method 8082

TABLE II
SUMMARY OF SOIL QUALITY DATA
FORMER ENERGY INTERNATIONAL PARCEL
BOSTON, MASSACHUSETTS
FILE NO. 06318-502

Client Sample ID: Lab Sample ID: Sample Depth (ft): Date Sampled: Matrix:	MassDEP Reportable Concentration	HA-203 S1 L1203630-06	HA-203 S2 L1203630-07	HA-203 S3 L1203630-08	HA-204 S1 L1203632-01	HA-204 S2 L1203632-02	HA-204 S3 L1203632-03	HA-205 S1 L1203632-06	HA-205 S2 L1203632-07	HA-205 S3 L1203632-08	HA-206 S1 L1203636-01	HA-206 S2 L1203636-02	HA-206 S3 L1203636-03	HA-207 S1 L1203636-06	HA-207 S2 L1203636-07	HA-207 S3 L1203636-08	HA-208 S1 L1203638-01	HA-208 S2 L1203638-02	HA-208 S3 L1203638-03
	(RCS-1)	0-0.5 3/2/2012 Fill	1-2 3/2/2012 Fill	2-3 3/2/2012 Fill	0-0.5 3/2/2012 Fill	1-2 3/2/2012 Fill	2-3 3/2/2012 Fill	0-0.5 3/2/2012 Fill	1-2 3/2/2012 Fill	2-3 3/2/2012 Fill	0-0.5 3/2/2012 Fill	1-2 3/2/2012 Fill	2-3 3/2/2012 Fill	0-0.5 3/2/2012 Fill	1-2 3/2/2012 Fill	2-3 3/2/2012 Fill	0-0.5 3/2/2012 Fill	1-2 3/2/2012 Fill	2-3 3/2/2012 Fill
VOCs (µg/kg)																			
Benzene	2000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Naphthalene	4000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Toluene	30000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2,4-Trimethylbenzene	1000000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Xylene (total)	300000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SVOCs (µg/kg)																			
Benzoic acid	1000000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3&4-Methylphenol	500000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acenaphthene	4000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acenaphthylene	1000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Anthracene	1000000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(a)anthracene	7000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(a)pyrene	2000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(b)fluoranthene	7000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(g,h,i)perylene	1000000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(k)fluoranthene	70000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chrysene	70000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dibenzo(a,h)anthracene	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dibenzofuran	100000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
bis(2-Ethylhexyl)phthalate	200000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fluoranthene	1000000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fluorene	1000000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Indeno(1,2,3-cd)pyrene	7000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Methylnaphthalene	700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Naphthalene	4000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Phenanthrene	10000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pyrene	1000000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
VPH (µg/kg)																			
C9-C10 Aromatics	100000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C5-C8 Aliphatics	100000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C9-C12 Aliphatics	1000000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPH (µg/kg)																			
C9-C18 Aliphatics	1000000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C19-C36 Aliphatics	3000000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C11-C22 Aromatics	1000000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

TABLE II
SUMMARY OF SOIL QUALITY DATA
FORMER ENERGY INTERNATIONAL PARCEL
BOSTON, MASSACHUSETTS
FILE NO. 06318-502

Client Sample ID: Lab Sample ID: Sample Depth (ft): Date Sampled: Matrix:	MassDEP Reportable Concentration	HA-203 S1 L1203630-06	HA-203 S2 L1203630-07	HA-203 S3 L1203630-08	HA-204 S1 L1203632-01	HA-204 S2 L1203632-02	HA-204 S3 L1203632-03	HA-205 S1 L1203632-06	HA-205 S2 L1203632-07	HA-205 S3 L1203632-08	HA-206 S1 L1203636-01	HA-206 S2 L1203636-02	HA-206 S3 L1203636-03	HA-207 S1 L1203636-06	HA-207 S2 L1203636-07	HA-207 S3 L1203636-08	HA-208 S1 L1203638-01	HA-208 S2 L1203638-02	HA-208 S3 L1203638-03
	(RCS-1)	0-0.5 3/2/2012 Fill	1-2 3/2/2012 Fill	2-3 3/2/2012 Fill	0-0.5 3/2/2012 Fill	1-2 3/2/2012 Fill	2-3 3/2/2012 Fill	0-0.5 3/2/2012 Fill	1-2 3/2/2012 Fill	2-3 3/2/2012 Fill	0-0.5 3/2/2012 Fill	1-2 3/2/2012 Fill	2-3 3/2/2012 Fill	0-0.5 3/2/2012 Fill	1-2 3/2/2012 Fill	2-3 3/2/2012 Fill	0-0.5 3/2/2012 Fill	1-2 3/2/2012 Fill	2-3 3/2/2012 Fill
Metals (mg/kg)																			
Antimony	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Barium	1000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Beryllium	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cadmium	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chromium	30	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lead	300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mercury	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nickel	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Selenium	400	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Silver	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Vanadium	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Zinc	2500	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TCLP Metals (mg/L)																			
Lead	NA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Polychlorinated Biphenyls (PCBs) (µg/kg)																			
Aroclor 1248	2000	155	73.5	ND (18.35)	ND (18.45)	ND (37.55)	ND (21)	4600	ND (18)	ND (18.9)	ND (38.6)	ND (19.35)	ND (18.5)	797	ND (21.1)	ND (21.8)	14000	ND (19.9)	ND (26.95)
Aroclor 1254	2000	150	102	ND (18.35)	67	ND (37.55)	ND (21)	9840	80	ND (18.9)	1030	ND (19.35)	ND (18.5)	1740	ND (21.1)	ND (21.8)	18900	ND (19.9)	ND (26.95)
Aroclor 1260	2000	101	96.1	ND (18.35)	117	ND (37.55)	ND (21)	2110	ND (18)	ND (18.9)	865	ND (19.35)	ND (18.5)	571	ND (21.1)	ND (21.8)	5600	ND (19.9)	ND (26.95)
Waste Characteristics																			
Corrosivity as pH	NA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cyanide Reactivity (mg/kg)	NA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ignitability (Flashpoint) (deg F)	NA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Redox Potential Vs H2	NA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Solids, Percent	NA	84	90	87	90	87	78	92	90	87	84	83	87	96	77	75	87	83	60
Sulfide Reactivity (mg/kg)	NA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes and Abbreviations:

^a Elevated RL due to dilution required for matrix interference.

^b Analysis requested after recommended holding time.

Only compounds detected on the dates indicated are included in this table.

ND (110): Compound not detected; value in parentheses is one half the laboratory reporting limit.

< : Compound not detected; value is the laboratory reporting limit.

- : Analysis not conducted.

Bold values indicate an exceedance of the MassDEP Reportable Concentration in Soil (RCS-1).

VOCs: Volatile Organic Compounds by SW846 8260B

SVOCs: Semi-volatile Organic Compounds by SW846 8270C

VPH: Volatile Petroleum Hydrocarbons by MADEP VPH REV 1.1

EPH: Extractable Petroleum Hydrocarbons by MADEP EPH REV 1

^a Estimated value due to the presence of other Aroclor pattern.

PCBs analyzed by SW846 EPA Method 8082

TABLE III
SUMMARY OF GROUNDWATER QUALITY DATA
FORMER ENERGY INTERNATIONAL PARCEL
BOSTON, MASSACHUSETTS
FILE NO. 06318-502

Client Sample ID Lab Sample ID Date Sampled Depth to Water Matrix	MassDEP Reportable Concentration (RCGW-2)	HA103(OW) L1100274-01 1/6/2011 13.7 Groundwater
VOCs (mg/L) Methyl tert butyl ether	5	0.015
EPH (mg/L) C9-C18 Aliphatics C19-C36 Aliphatics C11-C22 Aromatics	5 50 5	ND(0.0515) ND(0.0515) ND(0.0515)
PCBs (mg/L) Total PCBs		ND
Metals (mg/L) Antimony, Dissolved Arsenic, Dissolved Barium, Dissolved Beryllium, Dissolved Cadmium, Dissolved Chromium, Dissolved Lead, Dissolved Mercury, Dissolved Nickel, Dissolved Selenium, Dissolved Silver, Dissolved Thallium, Dissolved Vanadium, Dissolved Zinc, Dissolved	8 0.9 50 0.2 0.004 0.3 0.01 0.02 0.2 0.1 0.007 3 4 0.9	0.002 ND(0.0025) 0.293 ND(0.002) ND(0.002) ND(0.005) ND(0.005) ND(0.0001) ND(0.0125) ND(0.005) ND(0.0035) ND(0.001) ND(0.005) ND(0.025)

Notes and Abbreviations:

ND: Not detected

ND(0.0515): Not detected; number in parentheses
is one-half the laboratory detection limit

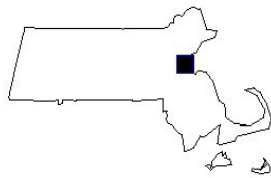
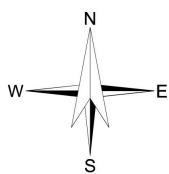
VOCs: Volatile Organic Compounds by EPA Method 8260

EPH: Extractable Petroleum Hydrocarbons by MassDEP EPH Method

PCBs: Polychlorinated Biphenyls by EPA Method 8082



SITE COORDINATES: 42°20'36"N 71°3'5"W



U.S.G.S. QUADRANGLE: BOSTON SOUTH, MA

HALEY & ALDRICH

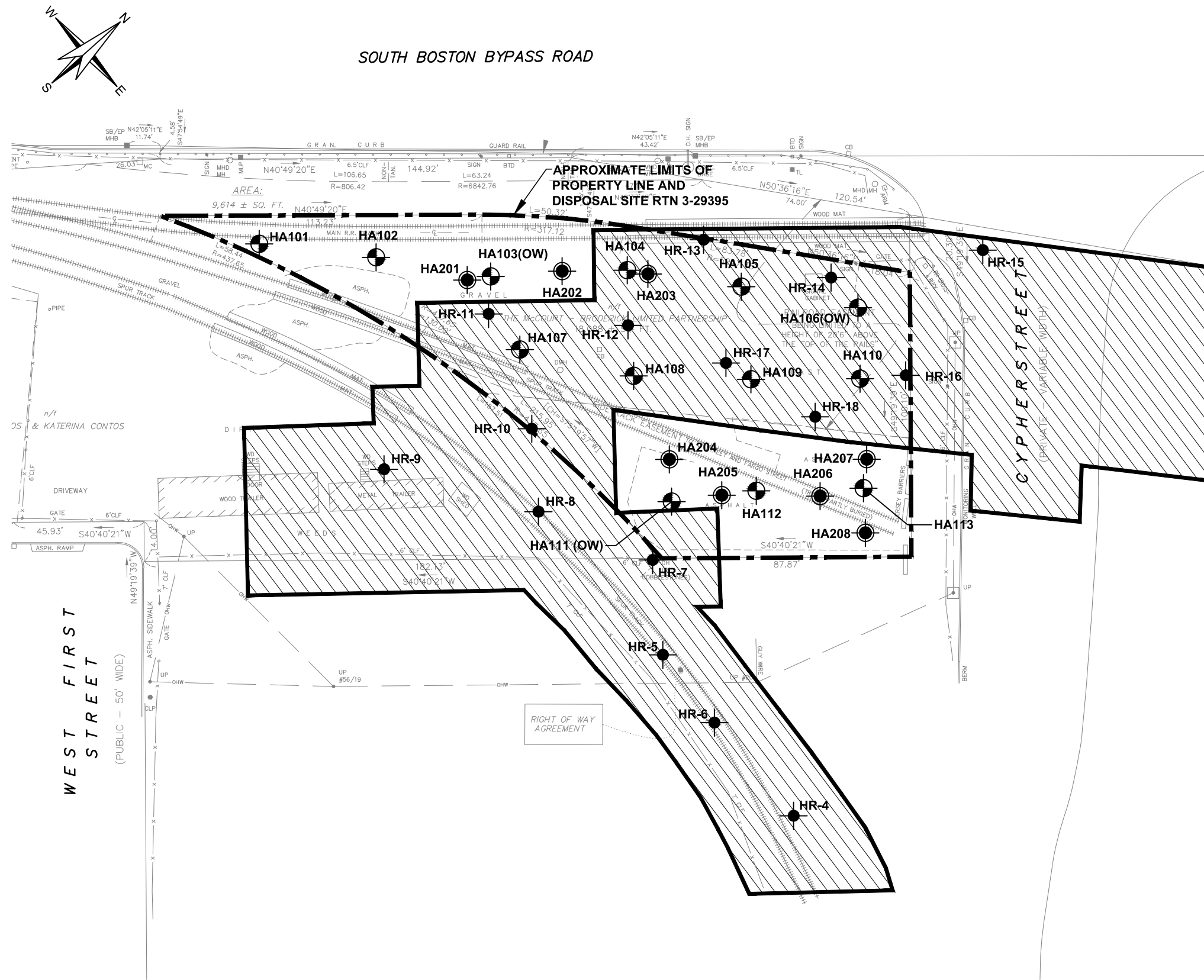
FORMER ENERGY INTERNATIONAL PARCEL
B STREET AND CYPHER STREET
BOSTON, MASSACHUSETTS

PROJECT LOCUS

SCALE: 1:24,000
JUNE 2013

FIGURE 1

J:\GRAPHICS\06318\06318-530-B051.DWG



- LEGEND:**
- HA201** DESIGNATION AND APPROXIMATE LOCATION OF TEST BORING CONDUCTED BY NEW HAMPSHIRE BORING OF DERRY, NEW HAMPSHIRE ON 2 MARCH 2012 AND MONITORED BY HALEY & ALDRICH PERSONNEL.
- HA101** DESIGNATION AND APPROXIMATE LOCATION OF TEST BORING CONDUCTED BY GEOLOGIC EARTH EXPLORATION, INC. OF NORFOLK, MASSACHUSETTS ON 29 NOVEMBER TO 2 DECEMBER 2010 AND MONITORED BY HALEY & ALDRICH PERSONNEL. "(OW)" INDICATES GROUNDWATER MONITORING WELL INSTALLED.
- HR-12** DESIGNATION AND APPROXIMATE LOCATION OF CONFIRMATORY POST-EXCAVATION SOIL SAMPLE COLLECTED BY CAMP DRESSER AND MCKEE (CDM) DURING MARCH/APRIL 1992
- AREA OF SOIL REMOVAL AND REMEDIATION PERFORMED IN 1992 IN PREPARATION FOR THE CONSTRUCTION OF THE SOUTH BOSTON HAUL ROAD FOR THE CENTRAL ARTERY/TUNNEL PROJECT.
- APPROXIMATE LIMITS OF PROPERTY LINE AND DISPOSAL SITE RTN 3-29395

- NOTE:**
1. BASE PLAN TAKEN FROM AN ELECTRONIC FILE TITLED "495-03m_transmittal.dwg", PREPARED BY DIGITAL GEOGRAPHIC TECHNOLOGIES, INC. RECEIVED BY HALEY & ALDRICH, INC. ON 28 AUGUST 2012.
- REFERENCE:**
1. CAMP, DRESSER & MCKEE, INC., "SUMMARY DOCUMENTATION REPORT FOR CLOSE-OUT OF PCB REMEDIATION SITE, SOUTH BOSTON HAUL ROAD, CENTRAL ARTERY/TUNNEL PROJECT," JUNE 1992.



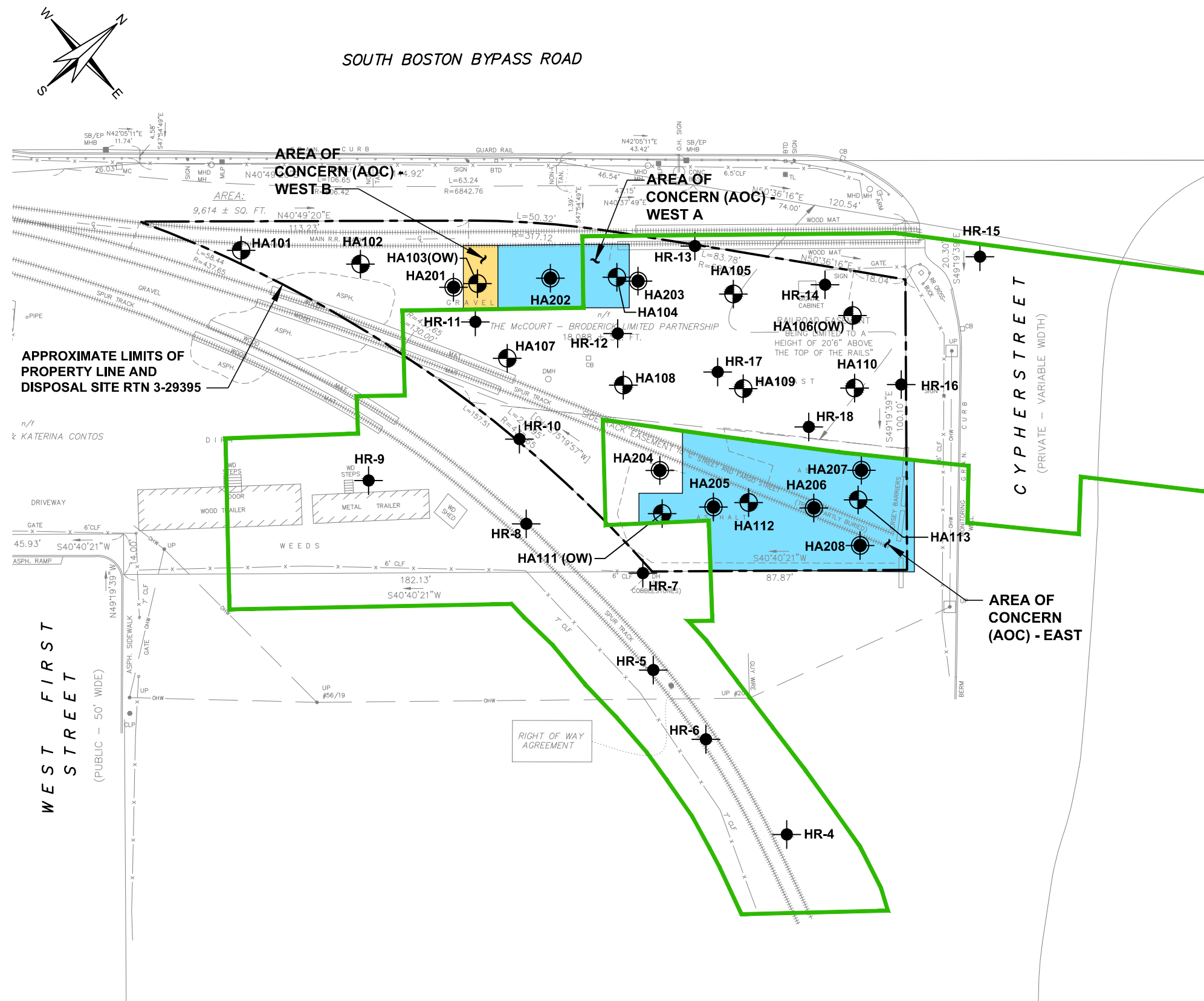
HALEY & ALDRICH FORMER ENERGY INTERNATIONAL PARCEL
B STREET AND CYPHER STREET
BOSTON, MASSACHUSETTS

**SITE AND SUBSURFACE
EXPLORATION LOCATION PLAN**

SCALE: AS SHOWN
JUNE 2013

FIGURE 2

J:\GRAPHICS\06318\06318-530-B052.DWG



- LEGEND:**
- HA201** DESIGNATION AND APPROXIMATE LOCATION OF TEST BORING CONDUCTED BY NEW HAMPSHIRE BORING OF DERRY, NEW HAMPSHIRE ON 2 MARCH 2012 AND MONITORED BY HALEY & ALDRICH PERSONNEL.
 - HA101** DESIGNATION AND APPROXIMATE LOCATION OF TEST BORING CONDUCTED BY GEOLOGIC EARTH EXPLORATION, INC. OF NORFOLK, MASSACHUSETTS ON 29 NOVEMBER TO 2 DECEMBER 2010 AND MONITORED BY HALEY & ALDRICH PERSONNEL. "(OW)" INDICATES GROUNDWATER MONITORING WELL INSTALLED.
 - HR-12** DESIGNATION AND APPROXIMATE LOCATION OF CONFIRMATORY POST-EXCAVATION SOIL SAMPLE COLLECTED BY CAMP DRESSER AND MCKEE (CDM) DURING MARCH/APRIL 1992
 - AREA OF SOIL REMOVAL AND REMEDIATION PERFORMED IN 1992 IN PREPARATION FOR THE CONSTRUCTION OF THE SOUTH BOSTON HAUL ROAD FOR THE CENTRAL ARTERY/TUNNEL PROJECT.**
 - 2 FEET DEPTH OF REMEDIAL EXCAVATION**
 - 4 FEET DEPTH OF REMEDIAL EXCAVATION**
 - APPROXIMATE LIMITS OF PROPERTY LINE AND DISPOSAL SITE RTN 3-29395**

- NOTE:**
1. BASE PLAN TAKEN FROM AN ELECTRONIC FILE TITLED "495-03m_transmittal.dwg", PREPARED BY DIGITAL GEOGRAPHIC TECHNOLOGIES, INC. RECEIVED BY HALEY & ALDRICH, INC. ON 28 AUGUST 2012.
- REFERENCE:**
1. CAMP, DRESSER & MCKEE, INC., "SUMMARY DOCUMENTATION REPORT FOR CLOSE-OUT OF PCB REMEDIATION SITE, SOUTH BOSTON HAUL ROAD, CENTRAL ARTERY/TUNNEL PROJECT," JUNE 1992.



HALEY & ALDRICH FORMER ENERGY INTERNATIONAL PARCEL
B STREET AND CYPHER STREET
BOSTON, MASSACHUSETTS

PCB REMEDIATION EXCAVATION PLAN

SCALE: AS SHOWN
JUNE 2013

APPENDIX A

EPA Correspondence

The McCourt-Broderick Limited Partnership
9420 Wilshire Boulevard, Suite 300
Beverly Hills, CA 90212

April 12, 2013

Kimberly N., Tisa
PCB Coordinator
United States Environmental Protection Agency (EPA)
5 Post Office Square, Suite 100 (OSRRO7-2)
Boston, MA 02109-3912

Re: PCB Cleanup and Disposal Approval under §§ 761.61 (a) and (c)
Former Energy International, Inc.
Boston Tax Assessor Parcel Number 06-2771-100
South Boston, MA
RTN: 3-29395

Dear Ms. Tisa:

Please be advised that we are in receipt of the above referenced EPA Approval, dated March 21, 2013.

We herewith accept the conditions set forth both in this referenced Approval, and the terms contained within Attachment 1, which is identified as follows:

PCB Cleanup and Disposal Conditions
Former Energy International Property
Boston Tax Assessor Parcel Number 06-2771-100
Cypher Street
South Boston, MA

Based on the mutual acceptance of our previous Notification, and your stated Approval, we now intend to move forward with our planned removal and disposal of all PCB contaminated soils from the referenced Cypher Street, South Boston, MA Property.

Please do not hesitate to contact me if any additional information is required.

Thank you for your assistance in this matter.



Austin P. Regolino
Executive Vice President



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION I

5 POST OFFICE SQUARE, SUITE 100
BOSTON, MASSACHUSETTS 02109-3912

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

MAR 21 2013

The McCourt-Broderick Limited Partnership
c/o Mr. Austin Regolino
The McCourt Company, Inc.
9420 Wilshire Boulevard, Suite 300
Beverly Hills, California 90212

Re: PCB Cleanup and Disposal Approval under §§ 761.61(a) and (c)
Former Energy International, Inc.
Boston Tax Assessor Parcel Number 06-2771-100
South Boston, Massachusetts
RTN: 3-29395

Dear Mr. Regolino:

This is in response to your Notification¹ to address PCB-contaminated soils on the property known as the former Energy International, Inc. parcel located on Cypher Street in South Boston, Massachusetts (the Site). Specifically, PCB-contamination exceeding the allowable concentration for unrestricted use is present in the soils at the Site. The Notification was submitted on behalf of the McCourt-Broderick Limited Partnership (McCourt-Broderick LP) by Haley & Aldrich in accordance with the requirements under 40 CFR §§ 761.61(a)(3) and (c).

In the Notification, you propose the following PCB cleanup and disposal activities:

- Remove PCB-contaminated soil with greater than (>) 1 part per million (ppm) and located within Area of concern (AOC) West A to a depth of 2 feet below ground surface (bgs);

¹ Information was submitted on behalf of McCourt-Broderick LP to satisfy the notification requirements under 40 CFR §§ 761.61(a)(3) and (c). Information was provided dated October 2012 (Report on Self-Implementing Cleanup and Disposal Plan (SIP)); February 11, 2013 (contact information via email); February 13 and 14, 2013 (verification sampling clarification via email); and, March 19, 2013 (Subpart O verification sampling figure and locations via email). These submittals, together, will be referred to as the "Notification."

- Remove PCB-contaminated soil with > 1 ppm and located within AOC West B to a depth of 4 feet bgs;
- Remove PCB-contaminated soil with > 1 ppm and located within AOC East to a depth of 2 feet bgs;
- Dispose of PCB-contaminated soils with > 1 ppm but less than (<) 50 ppm in a state RCRA-permitted non-hazardous waste landfill in accordance with § 761.61(a)(5)(i)(B)(2)(ii); and,
- Collect post-excavation confirmatory sampling in accordance with Subpart O to document that the PCB cleanup standard of less than or equal to (\leq) 1 ppm has been achieved.

With the exception of the soil characterization, the Notification meets the requirements under § 761.61(a). Based on the information provided and given the Site history, the Site characterization sampling, and the proposed removal plan, the PCB-impacted soils and concentrations appear to be adequately defined for purposes of cleanup and disposal. EPA finds that the alternative sampling will create no unreasonable risk to public health or the environment. EPA may approve the alternative sampling under § 761.61(c).

EPA is approving the Notification and you may proceed with the proposed PCB cleanup and disposal under 40 CFR §§ 761.61(a) and (c), the Notification, and this Approval subject to the conditions of Attachment 1.

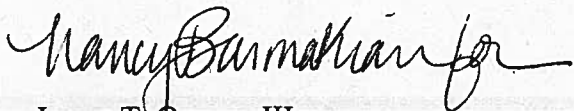
Please be aware that this Approval does not release McCourt-Broderick LP from any applicable requirements of federal, state or local law, including those requirements related to the cleanup of other [non-PCB] contaminants under the Massachusetts Department of Environmental Protection and the Massachusetts Contingency Plan.

Questions and correspondence concerning and/or required under this Approval should be directed to:

Kimberly N. Tisa, PCB Coordinator
United States Environmental Protection Agency
5 Post Office Square, Suite 100 (OSRR07-2)
Boston, Massachusetts 02109-3912
Telephone: (617) 918-1527
Facsimile: (617) 918-0527

EPA shall not consider this project complete until it has received all submittals required under this Approval. Please be aware that upon EPA receipt and review of the submittals, EPA may request any additional information necessary to establish that the work has been completed in accordance with 40 CFR Part 761, the Notification, and this Approval.

Sincerely,

A handwritten signature in black ink, appearing to read "James T. Owens, III", written over a horizontal line.

James T. Owens, III
Director, Office of Site Remediation & Restoration

cc: C. Worthy, Haley & Aldrich
MassDEP RTN: 3-29395
File

Attachment 1: PCB Approval Conditions

ATTACHMENT 1:

**PCB CLEANUP AND DISPOSAL APPROVAL CONDITIONS
FORMER ENERGY INTERNATIONAL PROPERTY
BOSTON TAX ASSESSOR PARCEL NUMBER 06-2771-100
CYPHER STREET
SOUTH BOSTON, MASSACHUSETTS**

GENERAL CONDITIONS

1. This Approval is granted under the authority of Section 6(e) of the Toxic Substances Control Act (TSCA), 15 U.S.C. § 2605(e), and the PCB regulations at 40 CFR Part 761, and applies solely to *PCB remediation waste* located at the Site and identified in the Notification¹. Specifically, this Approval applies to Areas of Concern (AOC) West A, AOC West B, and AOC East as shown on Figure 4 of the Notification.
2. The McCourt-Broderick Limited Partnership (Mccourt-Broderick LP) shall conduct on-site activities in accordance with the conditions of this Approval and with the Notification.
3. In the event that the cleanup plan described in the Notification differs from the conditions specified in this Approval, the conditions of this Approval shall govern.
4. The terms and abbreviations used herein shall have the meanings as defined in 40 CFR § 761.3 unless otherwise defined within this Approval.
5. The McCourt-Broderick LP must comply with all applicable federal, state and local regulations in the storage, handling, and disposal of all PCB wastes, including PCBs, PCB Items and decontamination wastes generated under this Approval. In the event of a new spill during response actions, the McCourt-Broderick LP shall contact EPA within 24 hours for direction on sampling and cleanup requirements.
6. The McCourt-Broderick LP is responsible for the actions of all officers, employees, agents, contractors, subcontractors, and others who are involved in activities conducted under this Approval. If at any time the McCourt-Broderick LP has or receives information indicating that it or any other person has failed, or may have failed, to comply with any provision of this Approval, the McCourt-Broderick LP must report the information to EPA in writing within 24 hours of having or receiving the information.

¹ Information was submitted on behalf of McCourt-Broderick LP to satisfy the notification requirements under 40 CFR §§ 761.61(a)(3) and (c). Information was provided dated October 2012 (Report on Self-Implementing Cleanup and Disposal Plan (SIP)); February 11, 2013 (contact information via email); February 13 and 14, 2013 (verification sampling clarification via email); and, March 19, 2013 (Subpart O verification sampling figure and locations via email). These submittals, together, will be referred to as the "Notification."

7. This Approval does not constitute a determination by EPA that the transporters or disposal facilities selected by the McCourt-Broderick LP are authorized to conduct the activities set forth in the Notification. The McCourt-Broderick LP is responsible for ensuring that its selected transporters and disposal facilities are authorized to conduct these activities in accordance with all applicable federal, state and local statutes and regulations.
8. This Approval does not: 1) waive or compromise EPA's enforcement and regulatory authority; 2) release the McCourt-Broderick LP from compliance with any applicable requirements of federal, state or local law; or 3) release the McCourt-Broderick LP from liability for, or otherwise resolve any violations of federal, state or local law.
9. Failure to comply with the Approval conditions specified herein shall constitute a violation of the requirements in § 761.50(a) to store or dispose of PCB waste in accordance with 40 CFR Part 761 Subpart D.

NOTIFICATION AND CERTIFICATION CONDITIONS

10. This Approval may be revoked if the EPA does not receive written notification from the McCourt-Broderick LP of its acceptance of the conditions of this Approval within 10 business days of receipt.
11. The McCourt-Broderick LP shall notify EPA in writing of the scheduled date of commencement of on-site activities at least 3 business days prior to conducting any work under this Approval.
12. Prior to initiating onsite work under this Approval, the following information shall be submitted to EPA for review and/or approval:
 - a. a certification signed by the selected analytical laboratory, stating that the laboratory has read and understands the analytical and quality assurance requirements specified in the Notification and in this Approval;
 - b. a contractor work plan, prepared and submitted by the selected remediation contractor(s) describing any air monitoring that will be employed during remedial activities and information on how and where wastes will be stored and disposed of, and on how field equipment will be decontaminated; and,
 - c. a certification signed by its selected remediation contractor, stating that the contractor has read and understands the Notification, and agrees to abide by the conditions specified in this Approval.

CLEANUP AND DISPOSAL CONDITIONS

13. The cleanup level for *PCB remediation waste* at the Site shall be in accordance with 40 CFR § 761.61(a)(4) and shall be less than or equal to (\leq) 1 part per million (ppm) PCBs to meet the requirements for a *high occupancy area* cleanup as described in the Notification.
 - a. Bulk *PCB remediation waste* (i.e., soil) samples shall be collected on a bulk basis (i.e., mg/Kg) and reported on a dry-weight basis.
 - i) Following excavation of the greater than ($>$) 1 ppm PCB-contaminated soils, verification sampling shall be conducted to confirm that the \leq 1 ppm PCB cleanup standard has been achieved. Sampling shall comply with Subpart O and samples will be collected from both excavation bottoms and from sidewalls. Bulk *PCB remediation waste* with $>$ 1 ppm but $<$ 50 ppm PCBs shall be disposed of in accordance with § 761.61(a)(5)(i)(B)(2)(ii) or § 761.61(a)(5)(i)(B)(2)(iii).
 - ii) Chemical extraction for PCBs shall be conducted using Methods 3500B/3540C of SW-846 for solid matrices and Method 3500B/3510C of SW-846 for aqueous matrices; and, chemical analysis for PCBs shall be conducted using Method 8082 of SW-846, unless another extraction and/or analytical method(s) is validated according to Subpart Q.
14. All PCB waste (regardless of concentration) generated as a result of the activities described in the Notification, excluding any decontaminated materials, shall be marked in accordance with § 761.40; stored in a manner prescribed in § 761.65; and, disposed of in accordance with § 761.61(a)(5), unless otherwise specified as follows:
 - a. Non-liquid cleaning materials, such as PPE and similar materials resulting from decontamination, shall be disposed of in accordance with 40 CFR § 761.79(g)(6).
 - b. Moveable equipment, tools, and sampling equipment shall be decontaminated in accordance with either 40 CFR § 761.79(b)(3)(i)(A), § 761.79(b)(3)(ii)(A), or § 761.79(c)(2).
 - c. PCB-contaminated water generated during decontamination or dewatering shall be decontaminated in accordance with 40 CFR § 761.79(b)(1) or disposed of under § 761.70.

INSPECTION, MODIFICATION AND REVOCATION CONDITIONS

15. The McCourt-Broderick LP shall allow any authorized representative of the Administrator of the EPA to inspect the Site and to inspect records and take samples as may be necessary to determine compliance with the PCB regulations and this Approval. Any refusal by the McCourt-Broderick LP to allow such an inspection (as authorized by Section 11 of TSCA) shall be grounds for revocation of this Approval.
16. Any proposed modification(s) in the plan, specifications, or information in the Notification must be submitted to EPA no less than 14 calendar days prior to the proposed implementation of the change. Such proposed modifications will be subject to the procedures of 40 CFR § 761.61(a)(3)(ii).
17. Any departure from the conditions of this Approval without prior, written authorization from the EPA may result in the revocation, suspension and/or modification of the Approval, in addition to any other legal or equitable relief or remedy the EPA may choose to pursue.
18. Any misrepresentation or omission of any material fact in the Notification or in any records or reports may result in the EPA's revocation, suspension and/or modification of the Approval, in addition to any other legal or equitable relief or remedy the EPA may choose to pursue.

RECORDKEEPING AND REPORTING CONDITIONS

19. The McCourt-Broderick LP shall prepare and maintain all records and documents required by 40 CFR Part 761, including but not limited to the records required under Subparts J and K. A written record of the decontamination and the analytical sampling shall be established and maintained by the McCourt-Broderick LP in one centralized location, until such time as EPA approves in writing a request for an alternative disposition of such records. All records shall be made available for inspection by authorized representatives of EPA.
20. The McCourt-Broderick LP shall submit a final report, both in hard copy and CD-ROM, to the EPA within 60 days of completion of the activities authorized under this Approval. At a minimum, this final report shall include: a short narrative of the project activities with photo log; characterization and confirmation sampling analytical results; copies of the accompanying chains of custody; field and laboratory quality control/quality assurance checks; an estimate of the quantity of PCB waste disposed of and the size of the remediated area(s); copies of manifests; and copies of certificates of disposal or similar certifications issued by the disposer.

21. Required submittals shall be mailed to:

Kimberly N. Tisa, PCB Coordinator (OSRR07-2)
United States Environmental Protection Agency
5 Post Office Square, Suite 100
Boston, Massachusetts 02114-2023
Telephone: (617) 918-1527 / Facsimile: (617) 918-0527

22. No record, report or communication required under this Approval shall qualify as a self-audit or voluntary disclosure under EPA audit, self disclosure or penalty policies.

END OF ATTACHMENT 1

APPENDIX B

**Copy of Release Abatement Measure (RAM) Transmittal Form BWSC106
and Notices to Municipal Officials**



Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC106

**RELEASE ABATEMENT MEASURE (RAM)
TRANSMITTAL FORM**

Release Tracking Number

3

-

29395

Pursuant to 310 CMR 40.0444 - 0446 (Subpart D)

A. SITE LOCATION:

1. Site Name/Location Aid: **FORMER ENERGY INTERNATIONAL INC**

2. Street Address: **ASSESSOR PARCEL #06-02771-100**

3. City/Town: **SOUTH BOSTON**

4. ZIP Code:

5. UTM Coordinates: a. UTM N: **4689905** b. UTM E: **330990**

☒ 6. Check here if a Tier Classification Submittal has been provided to DEP for this disposal site.

☐ a. Tier IA ☐ b. Tier IB ☐ c. Tier IC ☒ d. Tier II

7. If a Tier I Permit has been issued, provide Permit Number: _____

B. THIS FORM IS BEING USED TO: (check all that apply)

1. List Submittal Date of Initial RAM Plan (if previously submitted): _____
(mm/dd/yyyy)

☒ 2. Submit an **Initial Release Abatement Measure (RAM) Plan**.

☐ a. Check here if the RAM is being conducted as part of the construction of a permanent structure. If checked, you must specify what type of permanent structure is to be erected in or in the immediate vicinity of the area where the RAM is to be conducted.

b. Specify type of permanent structure: (check all that apply) ☐ i. School ☐ ii. Residential ☐ iii. Commercial

☐ iv. Industrial ☐ v. Other Specify: _____

☐ 3. Submit a **Modified RAM Plan** of a previously submitted RAM Plan.

☐ 4. Submit a **RAM Status Report**.

☐ 5. Submit a **Remedial Monitoring Report**. (This report can only be submitted through eDEP, concurrent with a RAM Status Report.)

a. Type of Report: (check one) ☐ i. Initial Report ☐ ii. Interim Report ☐ iii. Final Report

b. Number of Remedial Systems and/or Monitoring Programs: _____

A separate BWSC106A, RAM Remedial Monitoring Report, must be filled out for each Remedial System and/or Monitoring Program addressed by this transmittal form.

☐ 6. Submit a **RAM Completion Statement**.

☐ 7. Submit a **Revised RAM Completion Statement**.

8. Provide Additional RTNs:

☐ a. Check here if this RAM Submittal covers additional Release Tracking Numbers (RTNs). RTNs that have been previously linked to a Primary Tier Classified RTN do not need to be listed here. This section is intended to allow a RAM to cover more than one unclassified RTN and not show permanent linkage to a Primary Tier Classified RTN.

b. Provide the additional Release Tracking Number(s) covered by this RAM Submittal.

☐ - ☐ -

(All sections of this transmittal form must be filled out unless otherwise noted above)



Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC106

**RELEASE ABATEMENT MEASURE (RAM)
TRANSMITTAL FORM**

Release Tracking Number

3

-

29395

Pursuant to 310 CMR 40.0444 - 0446 (Subpart D)

C. RELEASE OR THREAT OF RELEASE CONDITIONS THAT WARRANT RAM:

1. Identify Media Impacted and Receptors Affected: (check all that apply)

- ☐ a. Air ☐ b. Basement ☐ c. Critical Exposure Pathway ☐ d. Groundwater ☐ e. Residence
☐ f. Paved Surface ☐ g. Private Well ☐ h. Public Water Supply ☐ i. School ☐ j. Sediments
☒ k. Soil ☐ l. Storm Drain ☐ m. Surface Water ☐ n. Unknown ☐ o. Wetland ☐ p. Zone 2
☐ q. Others Specify:

2. Identify all sources of the Release or Threat of Release, if known: (check all that apply)

- ☐ a. Above-ground Storage Tank (AST) ☐ b. Boat/Vessel ☐ c. Drums ☐ d. Fuel Tank
☐ e. Pipe/Hose/Line ☐ f. Tanker Truck ☐ g. Transformer ☐ h. Under-ground Storage Tank (UST)
☐ i. Vehicle ☒ j. Others Specify: **HISTORIC URBAN FILL**

3. Identify Oils and Hazardous Materials Released: (check all that apply)

- ☒ a. Oils ☐ b. Chlorinated Solvents ☒ c. Heavy Metals
☒ d. Others Specify: **PCBS, PAHS**

D. DESCRIPTION OF RESPONSE ACTIONS: (check all that apply, for volumes list cumulative amounts)

- | | |
|--|---|
| <input type="checkbox"/> 1. Assessment and/or Monitoring Only | <input type="checkbox"/> 2. Temporary Covers or Caps |
| <input type="checkbox"/> 3. Deployment of Absorbent or Containment Materials | <input type="checkbox"/> 4. Temporary Water Supplies |
| <input type="checkbox"/> 5. Structure Venting System | <input type="checkbox"/> 6. Temporary Evacuation or Relocation of Residents |
| <input type="checkbox"/> 7. Product or NAPL Recovery | <input type="checkbox"/> 8. Fencing and Sign Posting |
| <input type="checkbox"/> 9. Groundwater Treatment Systems | <input type="checkbox"/> 10. Soil Vapor Extraction |
| <input type="checkbox"/> 11. Bioremediation | <input type="checkbox"/> 12. Air Sparging |



Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC106

**RELEASE ABATEMENT MEASURE (RAM)
TRANSMITTAL FORM**

Release Tracking Number

3

-

29395

Pursuant to 310 CMR 40.0444 - 0446 (Subpart D)

D. DESCRIPTION OF RESPONSE ACTIONS (cont.): (check all that apply, for volumes list cumulative amounts)

☒ **13. Excavation of Contaminated Soils**

☒ a. Re-use, Recycling or Treatment

☐ i. On Site

Estimated volume in cubic yards

☒ ii. Off Site

Estimated volume in cubic yards

400

ii.a. Receiving Facility: **TREE**

Town: **ROCHESTER**

State: **NH**

ii.b. Receiving Facility:

Town:

State:

iii. Describe:

☐ b. Store

☐ i. On Site

Estimated volume in cubic yards

☐ ii. Off Site

Estimated volume in cubic yards

ii.a. Receiving Facility:

Town:

State:

ii.b. Receiving Facility:

Town:

State:

☐ c. Landfill

☐ i. Cover

Estimated volume in cubic yards

Receiving Facility:

Town:

State:

☐ ii. Disposal

Estimated volume in cubic yards

Receiving Facility:

Town:

State:

☐ **14. Removal of Drums, Tanks or Containers:**

a. Describe Quantity and Amount:

b. Receiving Facility:

Town:

State:

c. Receiving Facility:

Town:

State:

☒ **15. Removal of Other Contaminated Materials**

a. Specify Type and Volume:

WOOD TIES - 60 CY

b. Receiving Facility: **TBD**

Town: **TBD**

State: **MA**

c. Receiving Facility:

Town:

State:

☒ **16. Other Response Actions:**

Describe: **POSSIBLE CLEANING OF CONCRETE AND NON-POROUS MATERIAL**

☐ **17. Use of Innovative Technologies:**

Describe:



Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC106

RELEASE ABATEMENT MEASURE (RAM)
TRANSMITTAL FORM

Release Tracking Number

3

- 29395

Pursuant to 310 CMR 40.0444 - 0446 (Subpart D)

E. LSP SIGNATURE AND STAMP :

I attest under the pains and penalties of perjury that I have personally examined and am familiar with this transmittal form, including any and all documents accompanying this submittal. In my professional opinion and judgment based upon application of (i) the standard of care in 309 CMR 4.02(1), (ii) the applicable provisions of 309 CMR 4.02(2) and (3), and 309 CMR 4.03(2), and (iii) the provisions of 309 CMR 4.03(3), to the best of my knowledge, information and belief,

> if Section B of this form indicates that a **Release Abatement Measure Plan** is being submitted, the response action(s) that is (are) the subject of this submittal (i) has (have) been developed in accordance with the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000, (ii) is (are) appropriate and reasonable to accomplish the purposes of such response action(s) as set forth in the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000 and (iii) comply(ies) with the identified provisions of all orders, permits, and approvals identified in this submittal;

> if Section B of this form indicates that a **Release Abatement Measure Status Report** and/or **Remedial Monitoring Report** is being submitted, the response action(s) that is (are) the subject of this submittal (i) is (are) being implemented in accordance with the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000, (ii) is (are) appropriate and reasonable to accomplish the purposes of such response action(s) as set forth in the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000 and (iii) comply(ies) with the identified provisions of all orders, permits, and approvals identified in this submittal;

> if Section B of this form indicates that a **Release Abatement Measure Completion Statement** is being submitted, the response action(s) that is (are) the subject of this submittal (i) has (have) been developed and implemented in accordance with the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000, (ii) is (are) appropriate and reasonable to accomplish the purposes of such response action(s) as set forth in the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000 and (iii) comply(ies) with the identified provisions of all orders, permits, and approvals identified in this submittal:

I am aware that significant penalties may result, including, but not limited to, possible fines and imprisonment, if I submit information which I know to be false, inaccurate or materially incomplete.

1. LSP #: 6812

2. First Name: COLE E

3. Last Name: WORTHY

4. Telephone: (617) 886-7341

5. Ext.:

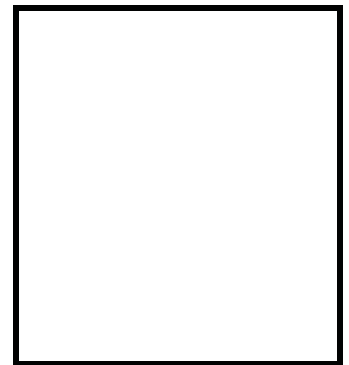
6. FAX:

7. Signature:

8. Date:

(mm/dd/yyyy)

9. LSP Stamp:





Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC106

**RELEASE ABATEMENT MEASURE (RAM)
TRANSMITTAL FORM**

Release Tracking Number

3 - **29395**

Pursuant to 310 CMR 40.0444 - 0446 (Subpart D)

F. PERSON UNDERTAKING RAM:

1. Check all that apply: ☐ a. change in contact name ☐ b. change of address ☐ c. change in the person undertaking response actions
2. Name of Organization: **MCCOURT-BRODERICK LIMITED PARTNERSHIP THE**
3. Contact First Name: **AUSTIN** 4. Last Name: **REGOLINO**
5. Street: **9420 WILSHIRE BLVD STE 300** 6. Title: **VICE PRESIDENT**
7. City/Town: **BEVERLY HILLS** 8. State: **CA** 9. ZIP Code: **90212-0000**
10. Telephone: **(310) 746-4200** 11. Ext.: 12. FAX:

G. RELATIONSHIP TO RELEASE OR THREAT OF RELEASE OF PERSON UNDERTAKING RAM:

- ☒ 1. RP or PRP ☒ a. Owner ☐ b. Operator ☐ c. Generator ☐ d. Transporter
- ☐ e. Other RP or PRP Specify:
- ☐ 2. Fiduciary, Secured Lender or Municipality with Exempt Status (as defined by M.G.L. c. 21E, s. 2)
- ☐ 3. Agency or Public Utility on a Right of Way (as defined by M.G.L. c. 21E, s. 5(j))
- ☐ 4. Any Other Person Undertaking RAM Specify Relationship:

H. REQUIRED ATTACHMENT AND SUBMITTALS:

- ☐ 1. Check here if any Remediation Waste, generated as a result of this RAM, will be stored, treated, managed, recycled or reused at the site following submission of the RAM Completion Statement. You must submit a Phase IV Remedy Implementation Plan along with the appropriate transmittal form (BWSC108).
- ☒ 2. Check here if the Response Action(s) on which this opinion is based, if any, are (were) subject to any order(s), permit(s) and/or approval(s) issued by DEP or EPA. If the box is checked, you MUST attach a statement identifying the applicable provisions thereof.
- ☒ 3. Check here to certify that the Chief Municipal Officer and the Local Board of Health have been notified of the implementation of a Release Abatement Measure.
- ☐ 4. Check here if any non-updatable information provided on this form is incorrect, e.g. Release Address/Location Aid. Send corrections to the DEP Regional Office.
- ☐ 5. If a RAM Compliance Fee is required for this RAM, check here to certify that a RAM Compliance Fee was submitted to DEP, P. O. Box 4062, Boston, MA 02211.
- ☒ 6. Check here to certify that the LSP Opinion containing the material facts, data, and other information is attached.



Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC106

**RELEASE ABATEMENT MEASURE (RAM)
TRANSMITTAL FORM**

Release Tracking Number

3

-

29395

Pursuant to 310 CMR 40.0444 - 0446 (Subpart D)

I. CERTIFICATION OF PERSON UNDERTAKING RAM:

1. I, , attest under the pains and penalties of perjury (i) that I have personally examined and am familiar with the information contained in this submittal, including any and all documents accompanying this transmittal form, (ii) that, based on my inquiry of those individuals immediately responsible for obtaining the information, the material information contained in this submittal is, to the best of my knowledge and belief, true, accurate and complete, and (iii) that I am fully authorized to make this attestation on behalf of the entity legally responsible for this submittal. I/the person or entity on whose behalf this submittal is made am/is aware that there are significant penalties, including, but not limited to, possible fines and imprisonment, for willfully submitting false, inaccurate, or incomplete information.

2. By:

3. Title:

VICE PRESIDENT

Signature

4. For:

MCCOURT-BRODERICK LIMITED PARTNERSHIP THE

5. Date:

(Name of person or entity recorded in Section F)

(mm/dd/yyyy)

☐ 6. Check here if the address of the person providing certification is different from address recorded in Section F.

7. Street:

8. City/Town:

9. State:

10. ZIP Code:

11. Telephone:

12. Ext.:

13. FAX:

YOU ARE SUBJECT TO AN ANNUAL COMPLIANCE ASSURANCE FEE OF UP TO \$10,000 PER BILLABLE YEAR FOR THIS DISPOSAL SITE. YOU MUST LEGIBLY COMPLETE ALL RELEVANT SECTIONS OF THIS FORM OR DEP MAY RETURN THE DOCUMENT AS INCOMPLETE. IF YOU SUBMIT AN INCOMPLETE FORM, YOU MAY BE PENALIZED FOR MISSING A REQUIRED DEADLINE.

Date Stamp (DEP USE ONLY:)

**ATTACHMENT BWSC-106
FORMER ENERGY INTERNATIONAL, INC. PARCEL
CYPHER STREET
SOUTH BOSTON, MASSACHUSETTS
RTN 3-29395**

H. REQUIRED ATTACHMENT AND SUBMITTALS:

2. The Response Actions on which this opinion is based is subject to approval of the Self-Implementing Cleanup Plan, dated 31 October 2012, that was submitted to the Environmental Protection Agency on 1 November 2012.
3. The City of Boston Office of the Mayor and Public Health Commission were notified of the implementation of the Release Abatement Measure (RAM) in letters dated 13 June 2013. Copies of the letters are provided as an attachment to the report "Release Abatement Measure (RAM) Plan, Former Energy International, Inc. Parcel, Cypher Street, South Boston, Massachusetts, RTN 3-29395", dated May 2013.
6. LSP Opinion: Cole E. Worthy is the LSP for the project. The LSP seal and signature are provided on the attached Transmittal Form BWSC-106. The attached RAM Plan document dated 8 May 2013 contains material facts, data, and other information that support the LSP Opinion that, to the best of the LSP's knowledge, information and belief, the response actions that are the subject of this submittal (i) have been developed in accordance with the applicable provisions of M.G.L.c.21E and 310 CMR 40.0000, (ii) are appropriate and reasonable to accomplish the purposes of such response action as set forth in the applicable provisions of M.G.L.c.21E and 310 CMR 40.0000, and (iii) comply with the identified provisions of all orders, permits, and approvals identified in this submittal.

Haley & Aldrich, Inc.
465 Medford St.
Suite 2200
Boston, MA 02129-1400



Tel: 617.886.7400
Fax: 617.886.7600
HaleyAldrich.com

13 June 2013
File No. 06318-540

City of Boston
Office of the Mayor
One City Hall Plaza
Boston, Massachusetts 02201

Attention: Mayor Thomas Menino

Subject: Notification of RAM Implementation
Former Energy International, Inc. Parcel
Cypher Street
South Boston, Massachusetts
RTN 3-29395

Dear Mayor Menino:

On behalf of our client, McCourt-Broderick Limited Partnership, c/o The McCourt Company, Inc., we are notifying your offices of our intent to implement a Release Abatement Measure (RAM) Plan in accordance with the Massachusetts Contingency Plan (MCP) at 310 CMR 40.1403(3)(a) and (d). According to the MCP, notification must occur within 20 days prior to implementation of RAM activities, and must include information about the purpose, nature, and expected duration of the RAM.

The primary purpose of the RAM Plan is to provide guidance for the management of excavated urban fill soils and to mitigate exposures to workers and others during planned construction activities at the above-referenced site. We anticipate that the RAM activities will begin in May 2013 and continue for a period of approximately 1-2 months. Additional information is presented in our RAM Plan, which can be viewed and copied at the Massachusetts Department of Environmental Protection Northeast Regional Office File Review Center, 205B Lowell Street, Wilmington, Massachusetts, or viewed online at http://public.dep.state.us/wsc_viewer/.

If you have any questions, please feel free to contact us at 617-886-7400.

Sincerely yours,
HALEY & ALDRICH, INC.

A handwritten signature in blue ink, appearing to read "Cole E. Worthy III".

Cole E. Worthy III, LSP of Record
Vice President

Haley & Aldrich, Inc.
465 Medford St.
Suite 2200
Boston, MA 02129-1400



Tel: 617.886.7400
Fax: 617.886.7600
HaleyAldrich.com

13 June 2013
File No. 06318-540

City of Boston
Public Health Commission
1010 Massachusetts Avenue, 2nd Floor
Boston, Massachusetts 02118

Attention: Dr. Barbara Ferrer

Subject: Notification of RAM Implementation
Former Energy International, Inc. Parcel
Cypher Street
South Boston, Massachusetts
RTN 3-29395

Dear Dr. Ferrer:

On behalf of our client, McCourt-Broderick Limited Partnership, c/o The McCourt Company, Inc., we are notifying your offices of our intent to implement a Release Abatement Measure (RAM) Plan in accordance with the Massachusetts Contingency Plan (MCP) at 310 CMR 40.1403(3)(a) and (d). According to the MCP, notification must occur within 20 days prior to implementation of RAM activities, and must include information about the purpose, nature, and expected duration of the RAM.

The primary purpose of the RAM Plan is to provide guidance for the management of excavated urban fill soils and to mitigate exposures to workers and others during planned construction activities at the above-referenced site. We anticipate that the RAM activities will begin in May 2013 and continue for a period of approximately 1-2 months. Additional information is presented in our RAM Plan, which can be viewed and copied at the Massachusetts Department of Environmental Protection Northeast Regional Office File Review Center, 205B Lowell Street, Wilmington, Massachusetts, or viewed online at http://public.dep.state.us/wsc_viewer/.

If you have any questions, please feel free to contact us at 617-886-7400.

Sincerely yours,
HALEY & ALDRICH, INC.

A handwritten signature in blue ink, appearing to read "Cole E. Worthy III".

Cole E. Worthy III, LSP of Record
Vice President

APPENDIX C

Geoprobe Boring Logs and Observation Well Installation Reports

GEOPROBE REPORT

Boring No. HA101

Project FORMER ENERGY INTERNATIONAL PARCEL, BOSTON, MA
 Client THE MCCOURT-BRODERICK LIMITED PARTNERSHIP
 Contractor GEOLOGIC-EARTH EXPLORATION, INC.

File No. 06318-502
 Sheet No. 1 of 1
 Start December 2, 2010
 Finish December 2, 2010
 Driller D. Jacobs

H&A Rep. M. Dodson

Elevation
 Datum Boston City Base

Location As planned-center
 of grid


				Casing	Sampler	Barrel	Drilling Equipment and Procedures		Finish							
Type				--	G	--	Rig Make & Model: Geoprobe		Driller D. Jacobs							
Inside Diameter (in.)				--	2.0	--	Bit Type:		H&A Rep. M. Dodson							
Hammer Weight (lb)				--	--	-	Drill Mud: None		Elevation							
Hammer Fall (in.)				--	--	-	Casing: None		Datum Boston City Base							
							Hoist/Hammer: Automatic Hammer --		Location As planned-center of grid							
							PID Make & Model: --									
Depth (ft)	Sampler Blows per 6 in.	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Color, GROUP NAME, max. particle size [†] , structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)	Gravel		Sand			Field Test				
							% Coarse	% Fine	% Coarse	% Medium	% Fine	% Fines	Dilatancy	Toughness	Plasticity	Strength
0	PUSH	G1 42	0.0 4.0	8.0	SP/ SW	Note: Began boring (0.0 ft) below approximately 1.0 ft of coarse gravel railroad ballast. PID = 0.0/0.0 ppm Gray to brown well graded to poorly graded SAND with gravel (SP/SW), mps 1.3 in., no structure, no odor, dry to moist, approximately 15% cinders and ash PID = 0.0/0.0 ppm	5	15	15	20	40	5				
5		PUSH	G2 22			4.0 8.0										
						Note: 6.0 to 6.8 ft black silty SAND (SM), moist. PID = 11.5/0.0 ppm										
10	PUSH	G3	8.0 12.0			SP/ ML										
15	PUSH	G4	12.0 16.0	12.0	OL/ OH	Dark gray brown ORGANIC SOIL with sand (OL-OH), mps 1.0 in. (wood), disturbed slight hydrogen sulfide and petroleum-like odor, wet, trace brick and concrete specks and fragments, 5% wood and peat fibers, trace ash, cinders and coal-like material, shell specks and fragments PID = 0.0/0.0 ppm -COHESIVE FILL- PID = 0.0/0.0 ppm		5		5	10	80	N		L	L
20	PUSH	G5	16.0 20.0	16.0	SP- SM	Dark gray brown poorly graded SAND with silt (SP-SM), mps 0.5 in., no structure, no odor, wet, trace brick and concrete specks, shell specs PID = 0.0/0.0 ppm -FILL- PID = 0.0/0.0 ppm			10	25	55	10				
				19.5 20.0	CL	"Hard" (to touch) olive gray to yellow lean CLAY (CL), mps 1 mm, laminated, no odor, wet -MARINE DEPOSITS- BOTTOM OF EXPLORATION 20.0 FT					10	90	N		L	L

Water Level Data

Sample ID

Well Diagram

Summary

Date	Time	Elapsed Time (hr.)	Depth (ft) to:			O - Open End Rod T - Thin Wall Tube U - Undisturbed Sample S - Splitspoon Sample G - Geoprobe		Overburden (ft) Rock Cored (ft) Samples G5
			Bottom of Casing	Bottom of Hole	Water			
								Boring No. HA101

Field Tests:

Dilatancy: R - Rapid S - Slow N - None

Plasticity: N - Nonplastic L - Low M - Medium H - High

Toughness: L - Low M - Medium H - High

Dry Strength: N - None L - Low M - Medium H - High V - Very High

[†]Note: Maximum particle size (mps) is determined by direct observation within the limitations of sampler size.

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

GEOPROBE REPORT

Boring No. HA102

Project FORMER ENERGY INTERNATIONAL PARCEL, BOSTON, MA
 Client THE MCCOURT-BRODERICK LIMITED PARTNERSHIP
 Contractor GEOLOGIC-EARTH EXPLORATION, INC.


File No. 06318-502
 Sheet No. 1 of 1
 Start December 2, 2010
 Finish December 2, 2010
 Driller D. Jacobs

H&A Rep. M. Dodson

Elevation
 Datum Boston City Base

Location As planned-center
 of grid

				Casing	Sampler	Barrel	Drilling Equipment and Procedures		Finish	December 2, 2010									
Type				--	G	--	Rig Make & Model: Geoprobe		Driller	D. Jacobs									
Inside Diameter (in.)				--	2.0	--	Bit Type:		H&A Rep.	M. Dodson									
Hammer Weight (lb)				--	--	-	Drill Mud: None		Elevation										
Hammer Fall (in.)				--	--	-	Casing: None		Datum Boston City Base										
							Hoist/Hammer: Automatic Hammer --		Location As planned-center of grid										
							PID Make & Model: --												
Depth (ft)	Sampler Blows per 6 in.	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Color, GROUP NAME, max. particle size [†] , structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)					Gravel		Sand		Field Test				
											% Coarse	% Fine	% Coarse	% Medium	% Fine	% Fines	Dilatancy	Toughness	Plasticity
0	PUSH	G1 39	0.0 4.0	2.2	GP	Light gray poorly graded GRAVEL with sand (GP), mps 1.5 in., no structure, moderate degraded fuel/petroleum-like odor, moist to dry PID = 102.0/0.0 ppm													
SM					-FILL- PID = 125.0/0.0 ppm/ Dark gray brown silty SAND with gravel (SM), mps 1.0 in, no structure, strong fuel/petroleum-like odor, moist, trace sheen Note: 4.0 to 6.0 ft wet with sheen. Approximately 35% cinders, ash and coal-like specks. Probable perched water? PID = 60.8/0.0 ppm														
5	PUSH	G2 30	4.0 8.0		SM	Dark gray black 50% CINDERS, ASH, CLINKERS and COAL-LIKE SPECKS, 40% silty SAND, 10% BRICK FRAGMENTS and SPECKS, moderate degraded fuel/petroleum-like odor, moist PID = 28.0/0.0 ppm													
	PUSH	G3 27	8.0 12.0			8.0 to 12.0 ft - Similar to above except faint odor PID = 8.0/0.0 ppm													
10				12.0		-FILL- PID = 2.3/0.0 ppm Note: Due to "cave in" and dropping of perched impacted groundwater, stratum change inferred. May be impacted groundwater/soil above peat?													
	PUSH	G4 33	12.0 16.0		OL-OH	Gray (top 3.0 in.) to olive ORGANIC SOIL (OL-OH), mps 1 mm, no structure, degraded fuel/petroleum-like odor at top of recovery. Hydrogen sulfide odor at bottom PID = 2.3/0.0 ppm													
						-ORGANIC DEPOSITS- PID = 0.0/0.0 ppm													
15				16.0		BOTTOM OF EXPLORATION 16.0 FT													

Water Level Data						Sample ID	Well Diagram	Summary	
Date	Time	Elapsed Time (hr.)	Depth (ft) to:			O - Open End Rod T - Thin Wall Tube U - Undisturbed Sample S - Splitspoon Sample G - Geoprobe		Overburden (ft)	16.0
			Bottom of Casing	Bottom of Hole	Water			Rock Cored (ft)	Samples
								Boring No.	HA102
Field Tests:						Dilatancy: R - Rapid S - Slow N - None Toughness: L - Low M - Medium H - High Plasticity: N - Nonplastic L - Low M - Medium H - High Dry Strength: N - None L - Low M - Medium H - High V - Very High			
†Note: Maximum particle size (mps) is determined by direct observation within the limitations of sampler size.									
Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.									

GEOPROBE REPORT

Boring No. HA103 (OW)

Project FORMER ENERGY INTERNATIONAL PARCEL, BOSTON, MA
 Client THE MCCOURT-BRODERICK LIMITED PARTNERSHIP
 Contractor GEOLOGIC-EARTH EXPLORATION, INC.


File No. 06318-502
 Sheet No. 1 of 2
 Start December 1, 2010
 Finish December 1, 2010
 Driller D. Jacobs

H&A Rep. M. Dodson

Elevation 14.1
 Datum Boston City Base

Location As planned-center
 of grid

				Casing	Sampler	Barrel	Drilling Equipment and Procedures			
Type	--	G	--				Rig Make & Model: Geoprobe			
Inside Diameter (in.)	--	2.0	--				Bit Type:			
Hammer Weight (lb)	--	--	--				Drill Mud: None			
Hammer Fall (in.)	--	--	--				Casing: None			
							Hoist/Hammer: Automatic Hammer --			
							PID Make & Model: --			
Depth (ft)	Sampler Blows per 6 in.	Sample No. & Rec. (in.)	Sample Depth (ft)	Well Diagram	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Color, GROUP NAME, max. particle size [†] , structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)			
0										
	PUSH	G1 40	0.0 4.0			SM	Brown silty SAND with gravel (SM), mps 0.9 in., no structure, no odor, moist PID = 1.5/0.0 ppm -FILL-			
					11.9 2.2	GP SM	Gray poorly graded GRAVEL with sand (GP), mps 1.4 in., no structure, no odor, dry PID = 8.5/0.0 ppm Dark gray silty SAND (SM), mps 0.5 in., no structure, no odor, moist, 20% cinders and clinkers, trace coal-like material			
	PUSH	G2 37	4.0 8.0				-FILL- PID = 6.3/0.0 ppm			
							PID = 3.5/0.0 ppm			
	PUSH	G3 42	8.0 12.0				Note: Slight petrochemical-like odor from 8.0 to 11.8 ft. PID = 12.7/0.0 ppm			
							PID = 25.3/0.0 ppm			

Water Level Data						Sample ID		Well Diagram		Summary	
Date	Time	Elapsed Time (hr.)	Depth (ft) to:			O - Open End Rod T - Thin Wall Tube U - Undisturbed Sample S - Splitspoon Sample G - Geoprobe				Overburden (ft) 20.0 Rock Cored (ft) Samples G5	Boring No. HA103 (OW)
			Bottom of Casing	Bottom of Hole	Water						

Field Tests: Dilatancy: R - Rapid S - Slow N - None Plasticity: N - Nonplastic L - Low M - Medium H - High
 Toughness: L - Low M - Medium H - High Dry Strength: N - None L - Low M - Medium H - High V - Very High

[†]Note: Maximum particle size (mps) is determined by direct observation within the limitations of sampler size.

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

GEOPROBE REPORT

Boring No. HA103 (OW)

File No. 06318-502

Sheet No. 2 of 2

Depth (ft)	Sampler Blows per 6 in.	Sample No. & Rec. (in.)	Sample Depth (ft)	Well Diagram	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Color, GROUP NAME, max. particle size†, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)	Gravel		Sand			Field Test				
								% Coarse	% Fine	% Coarse	% Medium	% Fine	% Fines	Dilatancy	Toughness	Plasticity	Strength
15					2.3 11.8		-FILL-										
	P U S H	G4 39	12.0 16.0			GP- GM GP- GM	Light red yellow poorly graded GRAVEL with silt and sand (GP-GM), mps 1.0 in., no structure, no odor, wet Light red yellow poorly graded GRAVEL with silt and sand (GP-GM), mps 1.0 in., no structure, no odor, wet -FILL- PID = 10.6/0.0 ppm	10	60	10	5	5	10				
					0.8 13.3 0.6 13.5	SP- SM OL/ OH	2-in. layer of SAND, CINDERS, ASH, possible sheen, moderate petrochemical-like odor -FILL- Dark gray (probably stained) ORGANIC SOIL (OL/ OH), mps 1 mm, no structure, moderate petrochemical-like odor, wet, trace shell specks and peat fibers PID = 4.0/0.0 ppm			5	20	65 10	10 90	N	L	L	
					-0.9 15.0	OL/ OH	Similar to above except olive (no staining), moderate hydrogen sulfide odor										
	P U S H	G5 48	16.0 20.0				-ORGANIC DEPOSITS- PID = 0.0/0.0 ppm PID = 0.0/0.0 ppm										
20					-5.9 20.0		BOTTOM OF EXPLORATION 20.0 FT Note: Installed 2-in. observation well in completed borehole to 16.0 ft.										

NOTE: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

Boring No. HA103 (OW)

GEOPROBE REPORT

Boring No. HA104

Project FORMER ENERGY INTERNATIONAL PARCEL, BOSTON, MA
 Client THE MCCOURT-BRODERICK LIMITED PARTNERSHIP
 Contractor GEOLOGIC-EARTH EXPLORATION, INC.

File No. 06318-502
 Sheet No. 1 of 1
 Start December 1, 2010
 Finish December 1, 2010
 Driller D. Jacobs

H&A Rep. M. Dodson

Elevation
 Datum Boston City Base

Location As planned-center
 of grid


		Casing	Sampler	Barrel	Drilling Equipment and Procedures		Finish		December 1, 2010							
Type		--	G	--	Rig Make & Model: Geoprobe		Driller		D. Jacobs							
Inside Diameter (in.)		--	2.0	--	Bit Type:		H&A Rep.		M. Dodson							
Hammer Weight (lb)		--	--	-	Drill Mud: None		Elevation									
Hammer Fall (in.)		--	--	-	Casing: None		Datum		Boston City Base							
					Hoist/Hammer: Automatic Hammer --		Location		As planned-center of grid							
					PID Make & Model: --											
Depth (ft)	Sampler Blows per 6 in.	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Color, GROUP NAME, max. particle size [†] , structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)	Gravel		Sand		Field Test					
							% Coarse	% Fine	% Coarse	% Medium	% Fine	% Fines	Dilatancy	Toughness	Plasticity	Strength
0	P U S H	G1 34	0.0 4.0		GW	Light gray brown well graded GRAVEL with sand (GW), mps 1.0 in., no structure, no dor, dry PID = 0.0/0.0 ppm -FILL- PID = 0.0/0.0 ppm										
5	P U S H	G2 24	4.0 8.0	4.7	SM	Yellow brown to gray CINDERS and ASH, trace clinkers, approximately 20% silty SAND, layered, no odor, moist, trace coal-like material, clay fragments -FILL- PID = 0.9/0.0 ppm	20	30	20	20	10					
10	P U S H	G3 35	8.0 12.0	8.5	SM	Gray to light brown silty SAND with gravel (SM), mps 1.0 in., no structure, no odor, moist, approximately 15% cinders and ash -FILL- PID = 0.0/0.0 ppm	5	15	20	20	20	20				
				10.0	SM	Gray to black silty SAND (SM), approximately 50% black ash and coal-like mater, no odor, moist to wet below 10.5 ft PID = 1.2/0.0 ppm										
	P U S H	G4	12.0 16.0	12.0		Black sandy ELASTIC SILT/lean CLAY, 10% shell specks, brick specks, coal-like specks, wood fibers/fragments, moderate industrial fuel-like odor, wet PID = 0.0/0.0 ppm										
				13.2	OL/ OH	-FILL- Gray at top-olive ORGANIC SOIL (OL/OH), mps 5 mm, no structure, moderate hydrogen sulfide odor, wet, trace shell specks, fragments and peat fibers PID = 0.0/0.0 ppm										
15				16.0		-ORGANIC DEPOSITS- BOTTOM OF EXPLORATION 16.0 FT										

Water Level Data

Sample ID

Well Diagram

Summary

Date	Time	Elapsed Time (hr.)	Depth (ft) to:			O - Open End Rod T - Thin Wall Tube U - Undisturbed Sample S - Splitspoon Sample G - Geoprobe		Overburden (ft) Rock Cored (ft) Samples G4
			Bottom of Casing	Bottom of Hole	Water			Boring No. HA104

Field Tests:

Dilatancy: R - Rapid S - Slow N - None

Plasticity: N - Nonplastic L - Low M - Medium H - High

Toughness: L - Low M - Medium H - High

Dry Strength: N - None L - Low M - Medium H - High V - Very High

[†]Note: Maximum particle size (mps) is determined by direct observation within the limitations of sampler size.

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

GEOPROBE REPORT

Boring No. HA105

Project FORMER ENERGY INTERNATIONAL PARCEL, BOSTON, MA
 Client THE MCCOURT-BRODERICK LIMITED PARTNERSHIP
 Contractor GEOLOGIC-EARTH EXPLORATION, INC.

File No. 06318-502
 Sheet No. 1 of 1
 Start December 1, 2010
 Finish December 1, 2010
 Driller D. Jacobs

H&A Rep. M. Dodson

Elevation
 Datum Boston City Base

Location As planned-center
 of grid


				Casing	Sampler	Barrel	Drilling Equipment and Procedures		Finish	December 1, 2010					
Type				--	G	--	Rig Make & Model: Geoprobe		Driller	D. Jacobs					
Inside Diameter (in.)				--	2.0	--	Bit Type:		H&A Rep.	M. Dodson					
Hammer Weight (lb)				--	--	-	Drill Mud: None		Elevation						
Hammer Fall (in.)				--	--	-	Casing: None		Datum Boston City Base						
				--	--	-	Hoist/Hammer: Automatic Hammer --		Location As planned-center of grid						
				--	--	-	PID Make & Model: --								
Depth (ft)	Sampler Blows per 6 in.	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Color, GROUP NAME, max. particle size [†] , structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)	Gravel		Sand			Field Test			
							% Coarse	% Fine	% Coarse	% Medium	% Fine	% Fines	Dilatancy	Toughness	Plasticity
0	PUSH	G1 32	0.0 4.0		GW	Light gray brown well graded GRAVEL with sand (GW), mps 1.4 in., no structure, no odor, dry PID = 0.0/0.0 ppm -RAILROAD BALLAST-	35	30	15	15	20				
2.3					SM	Dark gray silty SAND with gravel (SM), mps 1.1 in., no structure, no odor, dry to moist, 10% cinders, ash and clinkers/coal-like material -FILL- PID = 0.0/0.0 ppm/	20	30	25	10	15				
5	PUSH	G2 33	4.0 8.0		4.5 GP-GM	Gray brown poorly graded GRAVEL with silt and sand (GP), mps 1.0 in., no structure, no odor, moist -FILL- Note: Lean CLAY 6.2 to 6.5 ft. PID = 0.0/0.0 ppm	10	40	10	10	20	10			
6.5						Gray brown to yellow brown CINDERS, ASH, trace clinkers, no structure, no odor, moist PID = 0.0/0.0 ppm/	10	35	25	20	10				
10	PUSH	G3 41	8.0 12.0		ML/ OL/OH	Note: Bottom 2.0 in. black sandy SILT/ORGANIC SOIL (ML/OL/OH), moderate petroleum-like odor, wet PID = 0.0/0.0 ppm									
12.2					OL/ OH	-FILL- Olive ORGANIC SOIL (OL/OH), mps 2 mm, no structure, no odor, wet PID = 0.0/0.0 ppm/					100	N	L	L	
15						-ORGANIC DEPOSITS- PID = 0.0/0.0 ppm									
					16.0	BOTTOM OF EXPLORATION 16.0 FT									

Water Level Data

Sample ID

Well Diagram

Summary

Date	Time	Elapsed Time (hr.)	Depth (ft) to:			O - Open End Rod T - Thin Wall Tube U - Undisturbed Sample S - Split Spoon Sample G - Geoprobe		Overburden (ft) Rock Cored (ft) Samples G4
			Bottom of Casing	Bottom of Hole	Water			Boring No. HA105

Field Tests:

Dilatancy: R - Rapid S - Slow N - None

Plasticity: N - Nonplastic L - Low M - Medium H - High

Toughness: L - Low M - Medium H - High

Dry Strength: N - None L - Low M - Medium H - High V - Very High

[†]Note: Maximum particle size (mps) is determined by direct observation within the limitations of sampler size.

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

GEOPROBE REPORT

Boring No. HA106 (OW)

Project FORMER ENERGY INTERNATIONAL PARCEL, BOSTON, MA
 Client THE MCCOURT-BRODERICK LIMITED PARTNERSHIP
 Contractor GEOLOGIC-EARTH EXPLORATION, INC.

File No. 06318-502
 Sheet No. 1 of 2
 Start December 1, 2010
 Finish December 1, 2010
 Driller D. Jacobs

H&A Rep. M. Dodson
 Elevation 15.2
 Datum Boston City Base
 Location As planned-center of grid

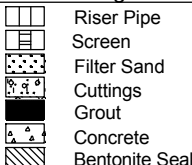
				Casing	Sampler	Barrel	Drilling Equipment and Procedures		Finish Driller	December 1, 2010									
Type	--	G	--				Rig Make & Model: Geoprobe		H&A Rep.	M. Dodson									
Inside Diameter (in.)	--	2.0	--				Bit Type:		Elevation	15.2									
Hammer Weight (lb)	--	--	--				Drill Mud: None		Datum	Boston City Base									
Hammer Fall (in.)	--	--	--				Hoist/Hammer: Automatic Hammer	--	Location	As planned-center of grid									
							PID Make & Model: --												
Depth (ft)	Sampler Blows per 6 in.	Sample No. & Rec. (in.)	Sample Depth (ft)	Well Diagram	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Color, GROUP NAME, max. particle size [†] , structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)	Gravel		Sand			Field Test						
								% Coarse	% Fine	% Coarse	% Medium	% Fine	% Fines	Dilatancy	Toughness	Plasticity	Strength		
0	PUSH	G1 33	0.0 4.0		13.2 2.0	GW-GM	Brown to gray well graded GRAVEL with sand and silt (GW-GM), mps 1.3 in., no structure, no odor, moist to dry PID = 4.2/0.0 ppm -PROBABLE RAILROAD BALLAST-	20	35	10	10	15	10						
SM						Yellow brown to gray brown silty SAND with gravel (SM), mps 0.5 in., no structure, no odor, moist to dry PID = 0.0/0.0 ppm													
CL						Yellow brown sandy lean CLAY (CL), mps 4 mm, no structure, no odor, fill			5	10	20	65	N	L	L				
	PUSH	G2 44	4.0 8.0		11.0 4.2	SM	-COHESIVE FILL- Brown gray yellow silty SAND (SM), 40% cinders and ash, no structure, no odor, moist PID = 1.0/0.0 ppm												
SM						-FILL- Gray white black CINDERS and ASH, trace clinkers, 10 to 15% silty SAND (SM), layered, no odor, moist -FILL- PID = 4.2/0.0 ppm													
						SM/CL	Similar to above except 15% yellow lean CLAY (CL), 10% brick and concrete fragments, 5 to 10% coal-like material -FILL- PID = 8.5/0.0 ppm												
	PUSH	G3 19	8.0 12.0		5.2 10.0	SM/CL	Similar to above except black stained, moderate creosote-like odor, moist to wet, 10% wood fragments, 10% coal-like material, 10% brick fragment PID = 6.1/0.0 ppm												
	PUSH	G4 48	12.0 16.0				-FILL- PID = 0.0/0.0 ppm												

Water Level Data

Sample ID

Well Diagram

Summary

Date	Time	Elapsed Time (hr.)	Depth (ft) to:			O - Open End Rod T - Thin Wall Tube U - Undisturbed Sample S - Splitspoon Sample G - Geoprobe		Overburden (ft)	
			Bottom of Casing	Bottom of Hole	Water			20.0	
								Rock Cored (ft)	
								Samples G5	
								Boring No. HA106 (OW)	

Field Tests:

Dilatancy: R - Rapid S - Slow N - None

Plasticity: N - Nonplastic L - Low M - Medium H - High

Toughness: L - Low M - Medium H - High

Dry Strength: N - None L - Low M - Medium H - High V - Very High

[†]Note: Maximum particle size (mps) is determined by direct observation within the limitations of sampler size.

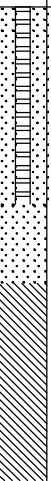
Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

GEOPROBE REPORT

Boring No. HA106 (OW)

File No. 06318-502

Sheet No. 2 of 2

Depth (ft)	Sampler Blows per 6 in.	Sample No. & Rec. (in.)	Sample Depth (ft)	Well Diagram	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Color, GROUP NAME, max. particle size [†] , structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)	Gravel		Sand				Field Test			
								% Coarse	% Fine	% Coarse	% Medium	% Fine	% Fines	Dilatancy	Toughness	Plasticity	Strength
15					0.7 14.5	OL/ OH	-FILL- Olive gray to gray below approximately 13.5 ft ORGANIC SOIL (OL/OH), mps 8 mm (shell fragment), no structure, moderate hydrogen sulfide odor, wet, 10% shell specks and peat fibers PID = 0.0/0.0 ppm PID = 0.0/0.0 ppm -ORGANIC DEPOSITS- PID = 0.0/0.0 ppm										
	P U S H	G5 48	16.0 20.0										100	N	L	L	
20					-4.8 20.0		BOTTOM OF EXPLORATION 20 FT										

NOTE: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

Boring No. HA106 (OW)

GEOPROBE REPORT

Boring No. HA107

Project FORMER ENERGY INTERNATIONAL PARCEL, BOSTON, MA
 Client THE MCCOURT-BRODERICK LIMITED PARTNERSHIP
 Contractor GEOLOGIC-EARTH EXPLORATION, INC.

File No. 06318-502
 Sheet No. 1 of 1
 Start November 30, 2010
 Finish November 30, 2010
 Driller D. Jacobs

H&A Rep. M. Dodson

Elevation
 Datum Boston City Base

Location As planned-center
 of grid


				Casing	Sampler	Barrel	Drilling Equipment and Procedures		Finish		November 30, 2010											
Type				--	G	--	Rig Make & Model: Geoprobe		Driller		D. Jacobs											
Inside Diameter (in.)				--	2.0	--	Bit Type:		H&A Rep.		M. Dodson											
Hammer Weight (lb)				--	--	-	Drill Mud: None		Elevation													
Hammer Fall (in.)				--	--	-	Casing: None		Datum		Boston City Base											
							Hoist/Hammer: Automatic Hammer --		Location		As planned-center of grid											
							PID Make & Model: --															
Depth (ft)	Sampler Blows per 6 in.	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION						Gravel		Sand		Field Test						
						(Color, GROUP NAME, max. particle size [†] , structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)						% Coarse	% Fine	% Coarse	% Medium	% Fine	% Fines	Dilatancy	Toughness	Plasticity	Strength	
0	P U S H	G1	0.0 4.0			60% well graded GRAVEL and BRICK fragments, 40% sand and silt, trace ash, cinders PID = 0.0/0.0 ppm -RAILROAD BALLAST- PID = 0.0/0.0 ppm																
						2.5	SM	Dark gray brown silty SAND (SM), mps 1.2 in., no structure, no odor, moist, 20% cinders and ash PID = 0.0/0.0 ppm						5	5	20	35	15	20			
	P U S H	G2	4.0 8.0	4.0		SM	-FILL- Similar to above except black, 35% cinders, clinkers and ash, trace glass fragments PID = 0.0/0.0 ppm PID = 0.0/0.0 ppm															
5						8.0	CL/ OL/ OH	Dark gray to black lean CLAY/ORGANIC SOIL (CL/ OL/OH), mps 0.6 in., no structure, slight petroleum-like odor, wet, 10% cinders and ash, trace wood, peat, glass PID = 0.0/0.2 ppm						5		5	5	85	N	L	L	
	P U S H	G3	8.0 12.0			11.0	-FILL- Similar to above except "sandy", moderate petroleum-like odor, slight sheen PID = 3.5/0.0 ppm															
						12.0 16.0	CL/ OL/ OH	Note: No sheen below approximately 12.5 ft. PID = 0.5/0.0 ppm														
	P U S H	G4	12.0 16.0			14.5	Olive ORGANIC SOIL (OL/OH), no structure, no odor, wet, trace shell specks and peat fibers PID = 0.0/0.0 ppm										5	95	N	L	L	
15						16.0	CL	-ORGANIC DEPOSITS- BOTTOM OF EXPLORATION 16.0 FT														

Water Level Data

Sample ID

Well Diagram

Summary

Date	Time	Elapsed Time (hr.)	Depth (ft) to:			O - Open End Rod T - Thin Wall Tube U - Undisturbed Sample S - Splitspoon Sample G - Geoprobe		Overburden (ft)		Rock Cored (ft)		Samples		G4	
			Bottom of Casing	Bottom of Hole	Water			16.0							

Boring No. HA107

Field Tests:

Dilatancy: R - Rapid S - Slow N - None

Plasticity: N - Nonplastic L - Low M - Medium H - High

Toughness: L - Low M - Medium H - High

Dry Strength: N - None L - Low M - Medium H - High V - Very High

[†]Note: Maximum particle size (mps) is determined by direct observation within the limitations of sampler size.

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

GEOPROBE REPORT

Boring No. HA108

Project FORMER ENERGY INTERNATIONAL PARCEL, BOSTON, MA
 Client THE MCCOURT-BRODERICK LIMITED PARTNERSHIP
 Contractor GEOLOGIC-EARTH EXPLORATION, INC.


File No. 06318-502
 Sheet No. 1 of 1
 Start November 30, 2010
 Finish November 30, 2010
 Driller D. Jacobs

H&A Rep. M. Dodson

Elevation
 Datum Boston City Base

Location As planned-center
 of grid

		Casing	Sampler	Barrel	Drilling Equipment and Procedures		Finish		November 30, 2010							
Type		--	G	--	Rig Make & Model: Geoprobe		Driller		D. Jacobs							
Inside Diameter (in.)		--	2.0	--	Bit Type:		H&A Rep.		M. Dodson							
Hammer Weight (lb)		--	--	-	Drill Mud: None		Elevation									
Hammer Fall (in.)		--	--	-	Casing: None		Datum		Boston City Base							
					Hoist/Hammer: Automatic Hammer --		Location		As planned-center of grid							
					PID Make & Model: --											
Depth (ft)	Sampler Blows per 6 in.	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Color, GROUP NAME, max. particle size [†] , structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)	Gravel		Sand			Field Test				
							% Coarse	% Fine	% Coarse	% Medium	% Fine	% Fines	Dilatancy	Toughness	Plasticity	Strength
0	PUSH	G1 34	0.0 4.0	6.0	SM	Gray brown to brown silty SAND with gravel (SM), mps 1.0 in., no structure, no odor, moist to dry, 20% brick and concrete fragments, 5% cinders and ash, trace wood and porcelain, clay fragments PID = 0.0/0.0 ppm PID = 0.0/0.0 ppm -FILL-	10	15	20	20	20	15				
5		PUSH	G2 24		4.0 8.0											
10	PUSH	G3 19	8.0 12.0		SM	Gray light gray, gray brown CINDERS, ASH, CLINKERS, 30% silty SAND (SM), mps 0.9 in., layered, no odor, moist, 5% brick and concrete specks/fragments, trace glass PID = 0.0/0.0 ppm	5	35	25	20	5	10				
15	PUSH	G4 37	12.0 16.0		13.0	OL/OH	Black ORGANIC SOIL (OL/OH) interbedded with black CINDERS, ASH and CLINKERS, 20% wood fragments -HARBOR MUD (FILL)-					10	90	S	N	N
				14.0	OL/OH	Olive ORGANIC SOIL (OL/OH), mps 1 mm, no structure, H2S odor, wet, trace shell fragments and peat fibers PID = 0.0/0.0 ppm -ORGANIC DEPOSITS-					5	95	N	L	L	
				16.0		BOTTOM OF EXPLORATION 16.0 FT										

Water Level Data						Sample ID	Well Diagram	Summary	
Date	Time	Elapsed Time (hr.)	Depth (ft) to:			O - Open End Rod T - Thin Wall Tube U - Undisturbed Sample S - Splitspoon Sample G - Geoprobe		Overburden (ft)	16.0
			Bottom of Casing	Bottom of Hole	Water			Rock Cored (ft)	Samples
								Boring No.	HA108
Field Tests:			Dilatancy: R - Rapid S - Slow N - None Toughness: L - Low M - Medium H - High			Plasticity: N - Nonplastic L - Low M - Medium H - High Dry Strength: N - None L - Low M - Medium H - High V - Very High			
†Note: Maximum particle size (mps) is determined by direct observation within the limitations of sampler size.									
Note: Soil identification based on visual-manual methods of the USCS as practiced by Haleb & Aldrich, Inc.									

GEOPROBE REPORT

Boring No. HA109

Project FORMER ENERGY INTERNATIONAL PARCEL, BOSTON, MA
 Client THE MCCOURT-BRODERICK LIMITED PARTNERSHIP
 Contractor GEOLOGIC-EARTH EXPLORATION, INC.


File No. 06318-502
 Sheet No. 1 of 1
 Start November 30, 2010
 Finish November 30, 2010
 Driller D. Jacobs

H&A Rep. M. Dodson

Elevation
 Datum Boston City Base

Location As planned-center
 of grid

				Casing	Sampler	Barrel	Drilling Equipment and Procedures		Finish		November 30, 2010						
Type				--	G	--	Rig Make & Model: Geoprobe		Driller		D. Jacobs						
Inside Diameter (in.)				--	2.0	--	Bit Type:		H&A Rep.		M. Dodson						
Hammer Weight (lb)				--	--	-	Drill Mud: None		Elevation								
Hammer Fall (in.)				--	--	-	Casing: None		Datum		Boston City Base						
							Hoist/Hammer: Automatic Hammer --		Location		As planned-center of grid						
							PID Make & Model: --										
Depth (ft)	Sampler Blows per 6 in.	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Color, GROUP NAME, max. particle size [†] , structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)		Gravel		Sand			Field Test				
								% Coarse	% Fine	% Coarse	% Medium	% Fine	% Fines	Dilatancy	Toughness	Plasticity	Strength
0	PUSH	G1 32	0.0 4.0		SM/CL	Gray to brown silty SAND with gravel (SM), mps 1.3 in., no structure, no odor, moist to dry, approximately 35% brick and gravel fragments, 5% ash and cinders, trace fabric, frequent lean CLAY pieces		10	10	25	20	15	20				
			PID = 0.0/0.0 ppm														
	PID = 2.9/0.0 ppm																
	-FILL-																
5	PUSH	G2 40	4.0 8.0			PID = 0.0/0.0 ppm											
					6.0	CL	Note: Cohesive/ORGANIC FILL 6.0 to 7.0 ft.										
					7.0		PID = 0.0/0.0 ppm										
	PUSH	G3 26	8.0 12.0				-FILL-										
								PID = 0.0/0.0 ppm									
10				10.5	GP	Note: Approximately 50% ash and cinders from 9.0 to 11.0 ft, 5% coal-like material.											
							Note: Wet below approximately 10.0 ft.										
				11.0	GP	PID = 0.0/0.2 ppm											
							Primarily GRAVEL from 10.5 to 11.0 ft										
	PUSH	G4 29	12.0 16.0			-FILL-											
							PID = 0.0/0.0 ppm										
15						Note: 100% cinders and ash from 14.0 to 15.5 ft, no odor.											
							PID = 0.0/0.0 ppm										
	PUSH	G5 25	16.0 20.0	16.5	OL/OH	PID = 0.0/0.0 ppm											
							Olive ORGANIC SOIL (OL/OH), no structure, H2S odor, wet, trace peat fibers and shell specks/fragments										
						PID = 0.0/0.0 ppm											
						-ORGANIC DEPOSITS-											
20				20.0		BOTTOM OF EXPLORATION 20.0 FT											

Water Level Data						Sample ID	Well Diagram	Summary		
Date	Time	Elapsed Time (hr.)	Depth (ft) to:			O - Open End Rod T - Thin Wall Tube U - Undisturbed Sample S - Splitspoon Sample G - Geoprobe		Riser Pipe Screen Filter Sand Cuttings Grout Concrete Bentonite Seal	Overburden (ft)	20.0
			Bottom of Casing	Bottom of Hole	Water				Rock Cored (ft)	Samples
									Boring No.	HA109
Field Tests:			Dilatancy: R - Rapid S - Slow N - None Toughness: L - Low M - Medium H - High			Plasticity: N - Nonplastic L - Low M - Medium H - High Dry Strength: N - None L - Low M - Medium H - High V - Very High				
†Note: Maximum particle size (mps) is determined by direct observation within the limitations of sampler size.										
Note: Soil identification based on visual-manual methods of the USCS as practiced by Halev & Aldrich, Inc.										

GEOPROBE REPORT

Boring No. HA110

Project FORMER ENERGY INTERNATIONAL PARCEL, BOSTON, MA
 Client THE MCCOURT-BRODERICK LIMITED PARTNERSHIP
 Contractor GEOLOGIC-EARTH EXPLORATION, INC.


File No. 06318-502
 Sheet No. 1 of 1
 Start November 30, 2010
 Finish November 30, 2010
 Driller D. Jacobs

H&A Rep. M. Dodson

Elevation
 Datum Boston City Base

Location As planned-center
 of grid

				Casing	Sampler	Barrel	Drilling Equipment and Procedures				Finish November 30, 2010						
Type				--	G	--	Rig Make & Model: Geoprobe				Driller D. Jacobs						
Inside Diameter (in.)				--	2.0	--	Bit Type:				H&A Rep. M. Dodson						
Hammer Weight (lb)				--	--	-	Drill Mud: None				Elevation						
Hammer Fall (in.)				--	--	-	Casing: None				Datum Boston City Base						
							Hoist/Hammer: Automatic Hammer --				Location As planned-center of grid						
							PID Make & Model: --										
Depth (ft)	Sampler Blows per 6 in.	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Color, GROUP NAME, max. particle size [†] , structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)	Gravel		Sand			Field Test					
							% Coarse	% Fine	% Coarse	% Medium	% Fine	% Fines	Dilatancy	Toughness	Plasticity	Strength	
0	PUSH	G1 31	0.0 4.0		SM	Brown silty SAND with gravel (SM), mps 1.2 in., no structure, no odor, moist to dry, 20% brick and concrete fragments, specks, trace coal-like material PID = 0.0/0.0 ppm	5	10	15	20	35	15					
CL/EH					-FILL- PID = 0.0/0.0 ppm												
	SC/SM	Dark gray sandy lean CLAY/elastic SILT (CL/EH), mps 0.5 in., no structure, no odor, moist, 10% coal-like material, 10% cinders and clinkers, color variation PID = 0.0/0.0 ppm	10		15	10	20	45									
5		PUSH	G2 27		4.0 8.0	6.0	-FILL- PID = 0.0/0.0 ppm										
	PUSH	G3 26	8.0 12.0	16.0	OL/OH	Dark olive gray clayey/silty SAND with gravel (SC/SM), mps 1.4 in., disturbed, no odor, moist, 20% ash and cinders, 5% brick fragments, 5% concrete fragments, trace coal-like material, porcelain, wood, glass, wet below approximately 10.0 ft PID = 0.0/0.0 ppm PID = 0.0/0.0 ppm	20	10	10	10	10	40	N S	L N	L N		
						-FILL- PID = 0.0/0.0 ppm											
							PID = 0.0/0.0 ppm										
							PID = 0.0/0.0 ppm										
15				20.0		Note: Slight petroleum-like odor from 15.0 to 16.0 ft.											
					OL/OH	Olive ORGANIC SOIL (OL/OH), mps 0.5 in., (shell), no structure, moderate H2S odor, wet, trace shells, organic fibers (peat) PID = 0.0/0.0 ppm					5	95	N	M	L		
						-ORGANIC DEPOSITS-											
20						BOTTOM OF EXPLORATION 20.0 FT											

Water Level Data						Sample ID		Well Diagram		Summary	
Date	Time	Elapsed Time (hr.)	Depth (ft) to:			O - Open End Rod T - Thin Wall Tube U - Undisturbed Sample S - Splitspoon Sample G - Geoprobe				Overburden (ft)	20.0
			Bottom of Casing	Bottom of Hole	Water					Rock Cored (ft)	
										Samples	G3
										Boring No. HA110	

Field Tests: Dilatancy: R - Rapid S - Slow N - None Plasticity: N - Nonplastic L - Low M - Medium H - High
 Toughness: L - Low M - Medium H - High Dry Strength: N - None L - Low M - Medium H - High V - Very High

[†]Note: Maximum particle size (mps) is determined by direct observation within the limitations of sampler size.

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

GEOPROBE REPORT

Boring No. HA111 (OW)






Project FORMER ENERGY INTERNATIONAL PARCEL, BOSTON, MA
 Client THE MCCOURT-BRODERICK LIMITED PARTNERSHIP
 Contractor GEOLOGIC-EARTH EXPLORATION, INC.

File No. 06318-502
 Sheet No. 1 of 1
 Start November 29, 2010
 Finish November 29, 2010
 Driller D. Jacobs

H&A Rep. M. Dodson

Elevation 14.3
 Datum Boston City Base

Location As planned-center
 of grid

				Casing	Sampler	Barrel	Drilling Equipment and Procedures		Finish Driller D. Jacobs									
Type				--	G	--	Rig Make & Model: Geoprobe		H&A Rep. M. Dodson									
Inside Diameter (in.)				--	2.0	--	Bit Type:		Elevation 14.3									
Hammer Weight (lb)				--	--	-	Drill Mud: None		Datum Boston City Base									
Hammer Fall (in.)				--	-	-	Casing: None		Location As planned-center of grid									
							Hoist/Hammer: Automatic Hammer --											
							PID Make & Model: --											
Depth (ft)	Sampler Blows per 6 in.	Sample No. & Rec. (in.)	Sample Depth (ft)	Well Diagram	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Color, GROUP NAME, max. particle size [†] , structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)		Gravel	Sand		Field Test						
									% Coarse	% Fine	% Coarse	% Medium	% Fine	% Fines	Dilatancy	Toughness	Plasticity	Strength
0	PUSH	G1 44	0.0 4.0		13.9 0.4	SM	-ASPHALT- PID = 0.0/0.0 ppm		5	15	20	20	20	20				
Gray brown silty SAND with gravel (SM), mps 1.3 in., disturbed with small pockets of cohesive soils, yellow sandy SILT, and approximately 10% cinders and ash, no odor, moist to dry																		
5	PUSH	G2 28	4.0 8.0		8.8 5.5	SM	-FILL- Note: Approximately 20% brick fragments and trace coal-like material from 4.0 to 5.5 ft. PID = 0.0/0.0 ppm											
							Approximately 80% gray CINDERS, ASH, CLINKERS, approximately 20% silty SAND (SM), mps 1.0 in., no structure, no odor, wet below approximately 6.5 ft. PID = 0.0/0.0 ppm											
10	PUSH	G3 33	8.0 12.0		4.8 9.5	OL/OH /CL	Dark olive gray to olive to black ORGANIC SOIL/lean CLAY (OL/OH /CL), mps 5 mm, no structure, petroleum-like odor, wet, occasional ash/cinders PID = 0.7/0.0 ppm						10	90	N	L	L	
							-COHESIVE FILL- PID = 0.3/0.0 ppm											
15	PUSH	G4 12	12.0 16.0		-1.7 16.0	OL-OH	Olive to olive gray ORGANIC SOIL (OL-OH), mps 1 mm, laminated, H2S odor, wet, trace peat fibers and shell specs PID = 0.0/0.0 ppm						5	95	N	L	L	
							-ORGANIC DEPOSITS- PID = 0.0/0.0 ppm											
20					-5.7 20.0		BOTTOM OF EXPLORATION 20.0 FT Note: Installed 2-in. observation well in completed borehole to 14.0 ft.											

Water Level Data						Sample ID		Well Diagram		Summary	
Date	Time	Elapsed Time (hr.)	Depth (ft) to:			O - Open End Rod T - Thin Wall Tube U - Undisturbed Sample S - Splitspoon Sample G - Geoprobe		Riser Pipe Screen Filter Sand Cuttings Grout Concrete Bentonite Seal	Overburden (ft) 20.0		
			Bottom of Casing	Bottom of Hole	Water				Rock Cored (ft)	Samples G5	
11/29/2010	0700	17.0	installed well			9.9			Boring No. HA111 (OW)		
Field Tests:			Dilatancy: R - Rapid S - Slow N - None Toughness: L - Low M - Medium H - High				Plasticity: N - Nonplastic L - Low M - Medium H - High Dry Strength: N - None L - Low M - Medium H - High V - Very High				
†Note: Maximum particle size (mps) is determined by direct observation within the limitations of sampler size.											
Note: Soil identification based on visual-manual methods of the USCS as practiced by Haleb & Aldrich, Inc.											

GEOPROBE REPORT

Boring No. HA112

Project FORMER ENERGY INTERNATIONAL PARCEL, BOSTON, MA
 Client THE MCCOURT-BRODERICK LIMITED PARTNERSHIP
 Contractor GEOLOGIC-EARTH EXPLORATION, INC.


File No. 06318-502
 Sheet No. 1 of 1
 Start November 29, 2010
 Finish November 29, 2010
 Driller D. Jacobs

H&A Rep. M. Dodson

Elevation
 Datum Boston City Base

Location As planned-center
 of grid

				Casing	Sampler	Barrel	Drilling Equipment and Procedures		Finish	November 29, 2010							
Type				--	G	--	Rig Make & Model: Geoprobe		Driller	D. Jacobs							
Inside Diameter (in.)				--	2.0	--	Bit Type:		H&A Rep.	M. Dodson							
Hammer Weight (lb)				--	--	-	Drill Mud: None		Elevation								
Hammer Fall (in.)				--	--	-	Casing: None		Datum Boston City Base								
				--	--	-	Hoist/Hammer: Automatic Hammer --		Location As planned-center of grid								
				--	--	-	PID Make & Model: --										
Depth (ft)	Sampler Blows per 6 in.	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Color, GROUP NAME, max. particle size [†] , structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)	Gravel		Sand			Field Test					
							% Coarse	% Fine	% Coarse	% Medium	% Fine	% Fines	Dilatancy	Toughness	Plasticity	Strength	
0	PUSH	G1 29	0.0	0.4	SP-SM	-ASPHALT- PID = 0.0/0.0 ppm											
4.0			0.8			Yellow poorly graded SAND with silt (SP-SM), dry Dark olive gray to black silty SAND (SM), mps 1.2 in., no structure, no odor, moist to dry, 15% cinders, ash and clinkers, trace brick specks -FILL- PID = 0.0/0.0 ppm	5	5	15	35	20	90	10				
5	PUSH	G2 28	4.0	6.0	SM	PID = 0.0/0.0 ppm											
8.0			Black to dark gray CINDERS, ASH and CLINKERS, approximately 45% silty SAND with gravel (SM), mps 1.3 in., no structure, no odor, moist to wet near 8.0 ft, trace brick specks, cohesive pockets, 10% coal-like specks PID = 0.0/0.0 ppm			5	10	15	20	25	25						
10	PUSH	G3 36	8.0	11.0	CL	-FILL- PID = 0.0/0.0 ppm											
12.0			PID = 0.0/0.0 ppm														
15	PUSH	G4 48	12.0	16.5	SP	PID = 0.0/0.0 ppm											
16.0			Dark olive gray to black sand lean CLAY (CL), mps 1 mm, no structure, slight petroleum-like odor, wet, 5 to 10% shell specks and fragments, 5% cinders and ash PID = 0.0/0.0 ppm														
			-COHESIVE FILL- PID = 0.0/0.0 ppm														
20	PUSH	G5 48	16.0	17.5	OL/OH	PID = 0.0/0.0 ppm											
20.0			Olive brown poorly graded SAND (SP), silty at top, becomes more fine with depth -ESTUARINE DEPOSITS- Olive brown ORGANIC SOIL (OL/OH), mps 0.5 in., (shell), no structure, H2S odor, wet, trace peat fibers and shell specks and fragments -ORGANIC DEPOSITS- PID = 0.0/0.0 ppm														
				20.0		BOTTOM OF EXPLORATION 20.0 FT											

Water Level Data						Sample ID		Well Diagram		Summary	
Date	Time	Elapsed Time (hr.)	Depth (ft) to:			O - Open End Rod T - Thin Wall Tube U - Undisturbed Sample S - Splitspoon Sample G - Geoprobe				Overburden (ft)	20.0
			Bottom of Casing	Bottom of Hole	Water					Rock Cored (ft)	
										Samples	G5
										Boring No. HA112	

Field Tests: Dilatancy: R - Rapid S - Slow N - None Plasticity: N - Nonplastic L - Low M - Medium H - High
 Toughness: L - Low M - Medium H - High Dry Strength: N - None L - Low M - Medium H - High V - Very High

[†]Note: Maximum particle size (mps) is determined by direct observation within the limitations of sampler size.

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

GEOPROBE REPORT

Boring No. HA113

Project FORMER ENERGY INTERNATIONAL PARCEL, BOSTON, MA
 Client THE MCCOURT-BRODERICK LIMITED PARTNERSHIP
 Contractor GEOLOGIC-EARTH EXPLORATION, INC.


File No. 06318-502
 Sheet No. 1 of 1
 Start November 29, 2010
 Finish November 29, 2010
 Driller D. Jacobs

H&A Rep. M. Dodson

Elevation
 Datum Boston City Base

Location As planned-center
 of grid

				Casing	Sampler	Barrel	Drilling Equipment and Procedures		Finish	November 29, 2010											
Type				--	G	--	Rig Make & Model: Geoprobe		Driller		D. Jacobs										
Inside Diameter (in.)				--	2.0	--	Bit Type:		H&A Rep.		M. Dodson										
Hammer Weight (lb)				--	--	-	Drill Mud: None		Elevation												
Hammer Fall (in.)				--	--	-	Casing: None		Datum		Boston City Base										
							Hoist/Hammer: Automatic Hammer --		Location		As planned-center of grid										
							PID Make & Model: --														
Depth (ft)	Sampler Blows per 6 in.	Sample No. & Rec. (in.)	Sample Depth (ft)	Stratum Change Elev/Depth (ft)	USCS Symbol	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION					Gravel		Sand			Field Test					
						(Color, GROUP NAME, max. particle size [†] , structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)					% Coarse	% Fine	% Coarse	% Medium	% Fine	% Fines	Dilatancy	Toughness	Plasticity	Strength	
0	PUSH	G1 37	0.0 4.0	0.4	SM	-ASPHALT- PID = 0.1/0.0 ppm															
			1.6	SM/CL	Brown gray brown silty SAND with gravel (SM), mps 1.0 in., no structure, no odor, moist Dark olive gray to black silty SAND with gravel (SM), interbedded with lean CLAY (20%) (CL), and CINDERS, ASH, CLINKERS (30%), no odor, moist, trace brick specks and concrete fragments					5	15	20	25	20	15	60					
5	PUSH	G2 35	4.0 8.0			-FILL- PID = 0.5/0.0 ppm PID = 0.2/0.0 ppm															
10	PUSH	G3 18	8.0 12.0		7.0	SM	PID = 0.0/0.0 ppm Gray CINDERS, ASH, and CLINKERS approximately 30% silty SAND (SM), mps 1.0 in., no odor, moist					5	20	25	30	15	5				
							-FILL- PID = 0.0/0.0 ppm														
15	PUSH	G4 48	12.0 16.0		11.0	OL/OH /CL	PID = 0.0/0.0 ppm Note: Based on drill action, poor recovery. Olive gray to gray ORGANIC SOIL/lean CLAY (OL/OH /CL), mps 5 mm, no structure, slight petroleum-like odor, wet						5		5	5	85	N	L	L	
							PID = 0.0/0.0 ppm -COHESIVE FILL- PID = 0.2/0.0 ppm														
20	PUSH	G5 48	16.0 20.0		15.5	SW	Gray well graded SAND (SW), mps 0.3 in., no structure, slight petroleum-like odor, wet							15	50	35					
						OL-OH	-ESTUARINE DEPOSITS- PID = 0.0/0.0 ppm Olive gray ORGANIC SOIL (OL-OH), mps 3 mm, no structure, slight H2S odor, wet, 5% peat fibers PID = 0.0/0.0 ppm -ORGANIC DEPOSITS-									5	95	N	L	L	
				20.0			BOTTOM OF EXPLORATION 20.0 FT														

Water Level Data						Sample ID	Well Diagram	Summary		
Date	Time	Elapsed Time (hr.)	Depth (ft) to:			O - Open End Rod T - Thin Wall Tube U - Undisturbed Sample S - Splitspoon Sample G - Geoprobe		Riser Pipe Screen Filter Sand Cuttings Grout Concrete Bentonite Seal	Overburden (ft)	20.0
			Bottom of Casing	Bottom of Hole	Water				Rock Cored (ft)	Samples
									Boring No.	HA113
Field Tests:			Dilatancy: R - Rapid S - Slow N - None Toughness: L - Low M - Medium H - High			Plasticity: N - Nonplastic L - Low M - Medium H - High Dry Strength: N - None L - Low M - Medium H - High V - Very High				
†Note: Maximum particle size (mps) is determined by direct observation within the limitations of sampler size.										
Note: Soil identification based on visual-manual methods of the USCS as practiced by Halev & Aldrich, Inc.										

GEOPROBE REPORT








Boring No. HA-201

Project CYPHER STREET PARCEL, SOUTH BOSTON, MA
 Client THE MCCOURT CO., INC.
 Contractor NEW HAMPSHIRE BORING, INC.

File No. 06318-520
 Sheet No. 1 of 1
 Start March 2, 2012
 Finish March 2, 2012
 Driller C. Downing
 H&A Rep. D. Palleiko

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	-	G	-	Rig Make & Model: Geoprobe
Inside Diameter (in.)	-	2	-	Bit Type: Geoprobe spoon
Hammer Weight (lb)	-	-	-	Drill Mud: None
Hammer Fall (in.)	-	-	-	Casing:
				Hoist/Hammer: Automatic Hammer
				PID Make & Model: MiniRAE 2000

Depth (ft)	Sampler Blows per 6 in.	Sample No. & Rec. (in.)	Sample Depth (ft)	USCS Symbol	Stratum Change Elev/Depth (ft)	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)	PID Readings (ppm)	Gravel		Sand		Field Test				
								% Coarse	% Fine	% Coarse	% Medium	% Fine	% Fines	Dilatancy	Toughness	Plasticity
0	P U S H	G1 40	0.0 5.0	GP	0.4	Gray poorly graded GRAVEL (GP)		90	5		5					
-BALLAST FILL-																
70-80% ASH, COAL, BRICK in fragments, particles and specks, 10% gravel, 10% sand, black, mps 2 in., no structure, no odor, moist						ND										
					5.0	-ASH FILL-										
5	P U S H	G2 32	5.0 8.0		8.0	100% ASH, COAL, BRICK, CONCRETE gray to black, mps 1.2 in., no structure, no odor, moist to wet in pockets	ND									
-ASH FILL-																
BOTTOM OF EXPLORATION 8.0 FT																

Water Level Data						Sample ID	Well Diagram		Summary	
Date	Time	Elapsed Time (hr.)	Depth (ft) to:		Water	O - Open End Rod T - Thin Wall Tube U - Undisturbed Sample S - Splitspoon Sample G - Geoprobe		Riser Pipe	Overburden (ft)	8.0
			Bottom of Casing	Bottom of Hole				Screen		
								Filter Sand	Samples	G2
								Cuttings		
								Grout		
								Concrete		
							Bentonite Seal			

Field Tests: Dilatancy: R - Rapid S - Slow N - None Plasticity: N - Nonplastic L - Low M - Medium H - High
 Toughness: L - Low M - Medium H - High Dry Strength: N - None L - Low M - Medium H - High V - Very High

*Note: Maximum particle size is determined by direct observation within the limitations of sampler size.

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

GEOPROBE REPORT








Boring No. HA-202

Project CYPHER STREET PARCEL, SOUTH BOSTON, MA
 Client THE MCCOURT CO., INC.
 Contractor NEW HAMPSHIRE BORING, INC.

File No. 06318-520
 Sheet No. 1 of 1
 Start March 2, 2012
 Finish March 2, 2012
 Driller C. Downing
 H&A Rep. D. Palleiko

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	-	G	-	Rig Make & Model: Geoprobe
Inside Diameter (in.)	-	2	-	Bit Type: Geoprobe spoon
Hammer Weight (lb)	-	-	-	Drill Mud: None
Hammer Fall (in.)	-	-	-	Casing:
				Hoist/Hammer: Automatic Hammer
				PID Make & Model: MiniRAE 2000

Depth (ft)	Sampler Blows per 6 in.	Sample No. & Rec. (in.)	Sample Depth (ft)	USCS Symbol	Stratum Change Elev/Depth (ft)	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)	PID Readings (ppm)	Gravel		Sand		Field Test					
								% Coarse	% Fine	% Coarse	% Medium	% Fine	% Fines	Dilatancy	Toughness	Plasticity	Strength
0	P U S H	G1 40	0.0 5.0	GP	0.3	Gray poorly graded GRAVEL (GP), mps 2 in., no structure, no odor, frozen	ND	90	5		5						
						-BALLAST FILL-											
						100% ASH, COAL in fragments, particles and specks, dark gray to black, mps 0.8 in., no odor, moist to wet in pockets											
						-ASH FILL-											
5	P U S H	G2 20	5.0 8.0		5.0	100% ASH, CINDERS, CONCRETE, BRICK in fragments, particles and specks, change to 100% FLY ASH at 6.7 ft, dark gray to red-gray to black, mps 0.8 in., no odor, moist	ND										
						-ASH FILL-											
					8.0	BOTTOM OF EXPLORATION 8.0 FT											

Water Level Data				Sample ID		Well Diagram		Summary	
Date	Time	Elapsed Time (hr.)	Depth (ft) to:						
			Bottom of Casing	Bottom of Hole	Water	O - Open End Rod T - Thin Wall Tube U - Undisturbed Sample S - Split spoon Sample G - Geoprobe	 Riser Pipe  Screen  Filter Sand  Cuttings  Grout  Concrete  Bentonite Seal	Overburden (ft) 8.0 Rock Cored (ft) - Samples G2	

Boring No. HA-202

Field Tests: Dilatancy: R - Rapid S - Slow N - None Plasticity: N - Nonplastic L - Low M - Medium H - High
 Toughness: L - Low M - Medium H - High Dry Strength: N - None L - Low M - Medium H - High V - Very High

*Note: Maximum particle size is determined by direct observation within the limitations of sampler size.

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

GEOPROBE REPORT








Boring No. HA-203

Project CYPHER STREET PARCEL, SOUTH BOSTON, MA
 Client THE MCCOURT CO., INC.
 Contractor NEW HAMPSHIRE BORING, INC.

File No. 06318-520
 Sheet No. 1 of 1
 Start March 2, 2012
 Finish March 2, 2012
 Driller C. Downing
 H&A Rep. D. Palleiko

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	-	G	-	Rig Make & Model: Geoprobe
Inside Diameter (in.)	-	2	-	Bit Type: Geoprobe spoon
Hammer Weight (lb)	-	-	-	Drill Mud: None
Hammer Fall (in.)	-	-	-	Casing:
				Hoist/Hammer: Automatic Hammer
				PID Make & Model: MiniRAE 2000

Depth (ft)	Sampler Blows per 6 in.	Sample No. & Rec. (in.)	Sample Depth (ft)	USCS Symbol	Stratum Change Elev/Depth (ft)	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)	PID Readings (ppm)	Gravel		Sand		Field Test					
								% Coarse	% Fine	% Coarse	% Medium	% Fine	% Fines	Dilatancy	Toughness	Plasticity	Strength
0	P U S H	G1 48	0.0 5.0	GP	0.3	Gray poorly graded GRAVEL (GP), mps 2 in., no structure, no odor, frozen -BALLAST FILL- 70-80% BRICK, CONCRETE, WOOD, ASH, CINDERS, COAL in fragments, particles and specks, 10% sand, 10% gravel, dark gray/red/black banded, mps 2 in., no structure, no odor, moist to wet in pockets -FILL- ND		90	5		5						
5	P U S H	G2 24	5.0 8.0		5.0	100% ASH, CINDERS, WOOD in fragments, particles and specks, dark gray to black, mps 2 in., no structure, no odor, moist to wet -ASH FILL- ND	ND										
					8.0	BOTTOM OF EXPLORATION 8.0 FT											

Water Level Data				Sample ID		Well Diagram		Summary	
Date	Time	Elapsed Time (hr.)	Depth (ft) to:						
			Bottom of Casing	Bottom of Hole	Water	O - Open End Rod T - Thin Wall Tube U - Undisturbed Sample S - Split spoon Sample G - Geoprobe	 Riser Pipe  Screen  Filter Sand  Cuttings  Grout  Concrete  Bentonite Seal	Overburden (ft) 8.0 Rock Cored (ft) - Samples G2	
								Boring No.	HA-203

Field Tests: Dilatancy: R - Rapid S - Slow N - None Plasticity: N - Nonplastic L - Low M - Medium H - High
 Toughness: L - Low M - Medium H - High Dry Strength: N - None L - Low M - Medium H - High V - Very High

*Note: Maximum particle size is determined by direct observation within the limitations of sampler size.

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

GEOPROBE REPORT








Boring No. HA-204

Project CYPHER STREET PARCEL, SOUTH BOSTON, MA
 Client THE MCCOURT CO., INC.
 Contractor NEW HAMPSHIRE BORING, INC.

File No. 06318-520
 Sheet No. 1 of 1
 Start March 2, 2012
 Finish March 2, 2012
 Driller C. Downing
 H&A Rep. D. Palleiko

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	-	G	-	Rig Make & Model: Geoprobe
Inside Diameter (in.)	-	2	-	Bit Type: Geoprobe spoon
Hammer Weight (lb)	-	-	-	Drill Mud: None
Hammer Fall (in.)	-	-	-	Casing:
				Hoist/Hammer: Automatic Hammer
				PID Make & Model: MiniRAE 2000

Depth (ft)	Sampler Blows per 6 in.	Sample No. & Rec. (in.)	Sample Depth (ft)	USCS Symbol	Stratum Change Elev/Depth (ft)	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)	PID Readings (ppm)	Gravel		Sand			Field Test				
								% Coarse	% Fine	% Coarse	% Medium	% Fine	% Fines	Dilatancy	Toughness	Plasticity	Strength
0	P U S H	G1 46	0.0		0.3	-BITUMINOUS CONCRETE PAVING-	ND										
			5.0			80% ASH, COAL, CINDERS, SLAG in fragments, particles and specks, dark brown to black, mps 1.2 in.											
					5.0	-ASH FILL-											
5	P U S H	G2 34	5.0			100% ASH, COAL, CINDERS, FLY ASH in fragments, particles and specks, dark gray to gray, mps 0.8 in., no structure, no odor, moist to wet	ND										
			8.0			-ASH FILL-											
					8.0	BOTTOM OF EXPLORATION 8.0 FT											

Water Level Data						Sample ID	Well Diagram	Summary	
Date	Time	Elapsed Time (hr.)	Depth (ft) to:		Water	O - Open End Rod T - Thin Wall Tube U - Undisturbed Sample S - Splitspoon Sample G - Geoprobe		Riser Pipe	Overburden (ft) 8.0
			Bottom of Casing	Bottom of Hole				Screen	
							Filter Sand	Samples G2	
							Cuttings		Boring No.
							Grout	HA-204	
						Concrete			
						Bentonite Seal			

Field Tests: Dilatancy: R - Rapid S - Slow N - None Plasticity: N - Nonplastic L - Low M - Medium H - High
 Toughness: L - Low M - Medium H - High Dry Strength: N - None L - Low M - Medium H - High V - Very High

*Note: Maximum particle size is determined by direct observation within the limitations of sampler size.

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

GEOPROBE REPORT

Boring No. HA-205

Project CYPHER STREET PARCEL, SOUTH BOSTON, MA
 Client THE MCCOURT CO., INC.
 Contractor NEW HAMPSHIRE BORING, INC.

File No. 06318-520
 Sheet No. 1 of 1
 Start March 2, 2012
 Finish March 2, 2012
 Driller C. Downing
 H&A Rep. D. Palleiko

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	-	G	-	Rig Make & Model: Geoprobe
Inside Diameter (in.)	-	2	-	Bit Type: Geoprobe spoon
Hammer Weight (lb)	-	-	-	Drill Mud: None
Hammer Fall (in.)	-	-	-	Casing:
				Hoist/Hammer: Automatic Hammer
				PID Make & Model: MiniRAE 2000

Depth (ft)	Sampler Blows per 6 in.	Sample No. & Rec. (in.)	Sample Depth (ft)	USCS Symbol	Stratum Change Elev/Depth (ft)	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)	PID Readings (ppm)	Gravel		Sand				Field Test				
								% Coarse	% Fine	% Coarse	% Medium			% Fine	% Fines	Dilatancy	Toughness	Plasticity
0	P U S H	G1 45	0.0 5.0		0.3	-BITUMINOUS CONCRETE PAVING-	ND											
						80-90% ASH, COAL, CINDERS, SLAG, BRICK, CERAMIC in fragments, particles and specks, 5% sand, 5% gravel, dark gray to black, mps 2 in., no structure, no odor, moist												
						-ASH FILL-												
5	P U S H	G2 29	5.0 8.0		5.0	70-80% COAL, ASH, CINDERS, SLAG, FLY ASH, WOOD in fragments, particles and specks, 10% sand, 10% gravel, dark gray to black, mps 1.2 in., no structure, no odor, moist to wet	ND											
					8.0	BOTTOM OF EXPLORATION 8.0 FT												

Water Level Data						Sample ID O - Open End Rod T - Thin Wall Tube U - Undisturbed Sample S - Splitspoon Sample G - Geoprobe	<div><div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></di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Field Tests: Dilatancy: R - Rapid S - Slow N - None Plasticity: N - Nonplastic L - Low M - Medium H - High
 Toughness: L - Low M - Medium H - High Dry Strength: N - None L - Low M - Medium H - High V - Very High

*Note: Maximum particle size is determined by direct observation within the limitations of sampler size.

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

GEOPROBE REPORT








Boring No. HA-206

Project CYPHER STREET PARCEL, SOUTH BOSTON, MA
 Client THE MCCOURT CO., INC.
 Contractor NEW HAMPSHIRE BORING, INC.

File No. 06318-520
 Sheet No. 1 of 1
 Start March 2, 2012
 Finish March 2, 2012
 Driller C. Downing
 H&A Rep. D. Palleiko

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	-	G	-	Rig Make & Model: Geoprobe
Inside Diameter (in.)	-	2	-	Bit Type: Geoprobe spoon
Hammer Weight (lb)	-	-	-	Drill Mud: None
Hammer Fall (in.)	-	-	-	Casing:
				Hoist/Hammer: Automatic Hammer
				PID Make & Model: MiniRAE 2000

Depth (ft)	Sampler Blows per 6 in.	Sample No. & Rec. (in.)	Sample Depth (ft)	USCS Symbol	Stratum Change Elev/Depth (ft)	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)	PID Readings (ppm)	Gravel		Sand			Field Test			
								% Coarse	% Fine	% Coarse	% Medium	% Fine	% Fines	Dilatancy	Toughness	Plasticity
0	P U S H	G1 44	0.0 5.0			80-90% ASH, CINDERS, SLAG, COAL, BRICK, WOOD in fragments, particles and specks, increasing ash with depth, 10% sand, dark brown to black, mps 2 in., no odor, moist to wet in pockets 										

Water Level Data						Sample ID	Well Diagram	Summary		
Date	Time	Elapsed Time (hr.)	Depth (ft) to:		Water	O - Open End Rod T - Thin Wall Tube U - Undisturbed Sample S - Splitspoon Sample G - Geoprobe		Riser Pipe	Overburden (ft)	8.0
			Bottom of Casing	Bottom of Hole				Screen	Rock Cored (ft)	-
								Filter Sand		
								Cuttings	Samples	G2
								Grout		
								Concrete	Boring No.	HA-206
								Bentonite Seal		

Field Tests: Dilatancy: R - Rapid S - Slow N - None Plasticity: N - Nonplastic L - Low M - Medium H - High
 Toughness: L - Low M - Medium H - High Dry Strength: N - None L - Low M - Medium H - High V - Very High

*Note: Maximum particle size is determined by direct observation within the limitations of sampler size.

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

GEOPROBE REPORT

Boring No. HA-207

Project CYPHER STREET PARCEL, SOUTH BOSTON, MA
 Client THE MCCOURT CO., INC.
 Contractor NEW HAMPSHIRE BORING, INC.

File No. 06318-520
 Sheet No. 1 of 1
 Start March 2, 2012
 Finish March 2, 2012
 Driller C. Downing
 H&A Rep. D. Palleiko

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	-	G	-	Rig Make & Model: Geoprobe
Inside Diameter (in.)	-	2	-	Bit Type: Geoprobe spoon
Hammer Weight (lb)	-	-	-	Drill Mud: None
Hammer Fall (in.)	-	-	-	Casing:
				Hoist/Hammer: Automatic Hammer
				PID Make & Model: MiniRAE 2000

Depth (ft)	Sampler Blows per 6 in.	Sample No. & Rec. (in.)	Sample Depth (ft)	USCS Symbol	Stratum Change Elev/Depth (ft)	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)	PID Readings (ppm)	Gravel		Sand		Field Test						
								% Coarse	% Fine	% Coarse	% Medium	% Fine	% Fines	Dilatancy	Toughness	Plasticity	Strength	
0	P U S H	G1 48	0.0		0.4	-BITUMINOUS CONCRETE PAVING-												
			5.0				80-90% ASH, COAL, CINDERS in fragments, particles and specks, 10% sand, 10% gravel, gray to black, mps 2 in., no structure, no odor, moist	ND										
						-ASH FILL-												
5	P U S H	G2 30	5.0		5.0	80-90% ASH, COAL, CINDERS, WOOD FIBERS in fragments, particles and specks, 10% sand, 10% gravel, dark gray to black, mps 0.9 in., no structure, no odor, moist to wet in pockets	ND											
			8.0				-ASH FILL-											
					8.0	BOTTOM OF EXPLORATION 8.0 FT												

Water Level Data				Sample ID		Well Diagram		Summary	
Date	Time	Elapsed Time (hr.)	Depth (ft) to:						
			Bottom of Casing	Bottom of Hole	Water	O - Open End Rod		Riser Pipe	Overburden (ft) 8.0
						T - Thin Wall Tube		Screen	Rock Cored (ft) -
						U - Undisturbed Sample		Filter Sand	Samples G2
						S - Split spoon Sample		Cuttings	
						G - Geoprobe		Grout	
								Concrete	
								Bentonite Seal	

Field Tests: Dilatancy: R - Rapid S - Slow N - None Plasticity: N - Nonplastic L - Low M - Medium H - High
 Toughness: L - Low M - Medium H - High Dry Strength: N - None L - Low M - Medium H - High V - Very High

*Note: Maximum particle size is determined by direct observation within the limitations of sampler size.

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

GEOPROBE REPORT

Boring No. HA-208

Project CYPHER STREET PARCEL, SOUTH BOSTON, MA
 Client THE MCCOURT CO., INC.
 Contractor NEW HAMPSHIRE BORING, INC.

File No. 06318-520
 Sheet No. 1 of 1
 Start March 2, 2012
 Finish March 2, 2012
 Driller C. Downing
 H&A Rep. D. Palleiko

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	-	G	-	Rig Make & Model: Geoprobe
Inside Diameter (in.)	-	2	-	Bit Type: Geoprobe spoon
Hammer Weight (lb)	-	-	-	Drill Mud: None
Hammer Fall (in.)	-	-	-	Casing:
				Hoist/Hammer: Automatic Hammer
				PID Make & Model: MiniRAE 2000

Depth (ft)	Sampler Blows per 6 in.	Sample No. & Rec. (in.)	Sample Depth (ft)	USCS Symbol	Stratum Change Elev/Depth (ft)	VISUAL-MANUAL IDENTIFICATION AND DESCRIPTION (Color, GROUP NAME, max. particle size*, structure, odor, moisture, optional descriptions GEOLOGIC INTERPRETATION)	PID Readings (ppm)	Gravel		Sand			Field Test			
								% Coarse	% Fine	% Coarse	% Medium	% Fine	% Fines	Dilatancy	Toughness	Plasticity
0	P U S H	G1 50	0.0 5.0	SM		Dark gray/gray/brown interbedded silty SAND with gravel (SM), mps 1.2 in., frequent interbeds silty sand with gravel and ash up to 6.0 in. thick, no odor, moist, 50-60% ASH, CINDERS in fragments, particles and specks <										

Water Level Data				Sample ID		Well Diagram		Summary	
Date	Time	Elapsed Time (hr.)	Depth (ft) to:						
			Bottom of Casing	Bottom of Hole	Water	O - Open End Rod		Riser Pipe	Overburden (ft) 8.0
						T - Thin Wall Tube		Screen	Rock Cored (ft) -
						U - Undisturbed Sample		Filter Sand	Samples G2
						S - Split spoon Sample		Cuttings	
						G - Geoprobe		Grout	
								Concrete	
								Bentonite Seal	

Field Tests: Dilatancy: R - Rapid S - Slow N - None Plasticity: N - Nonplastic L - Low M - Medium H - High
 Toughness: L - Low M - Medium H - High Dry Strength: N - None L - Low M - Medium H - High V - Very High

*Note: Maximum particle size is determined by direct observation within the limitations of sampler size.

Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

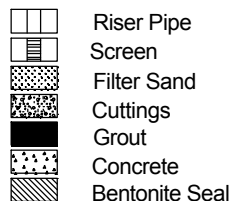
GROUNDWATER OBSERVATION WELL
INSTALLATION REPORT

Well No. HA103 (OW)

Boring No. HA103 (OW)

Project FORMER ENERGY INTERNATIONAL PARCEL
 Location BOSTON, MA
 Client THE MCCOURT-BRODERICK LIMITED PARTNERSHIP
 Contractor GEOLOGIC-EARTH EXPLORATION, INC.
 Driller D. Jacobs

Well Diagram



File No. 06318-502

Date Installed 1 Dec 2010

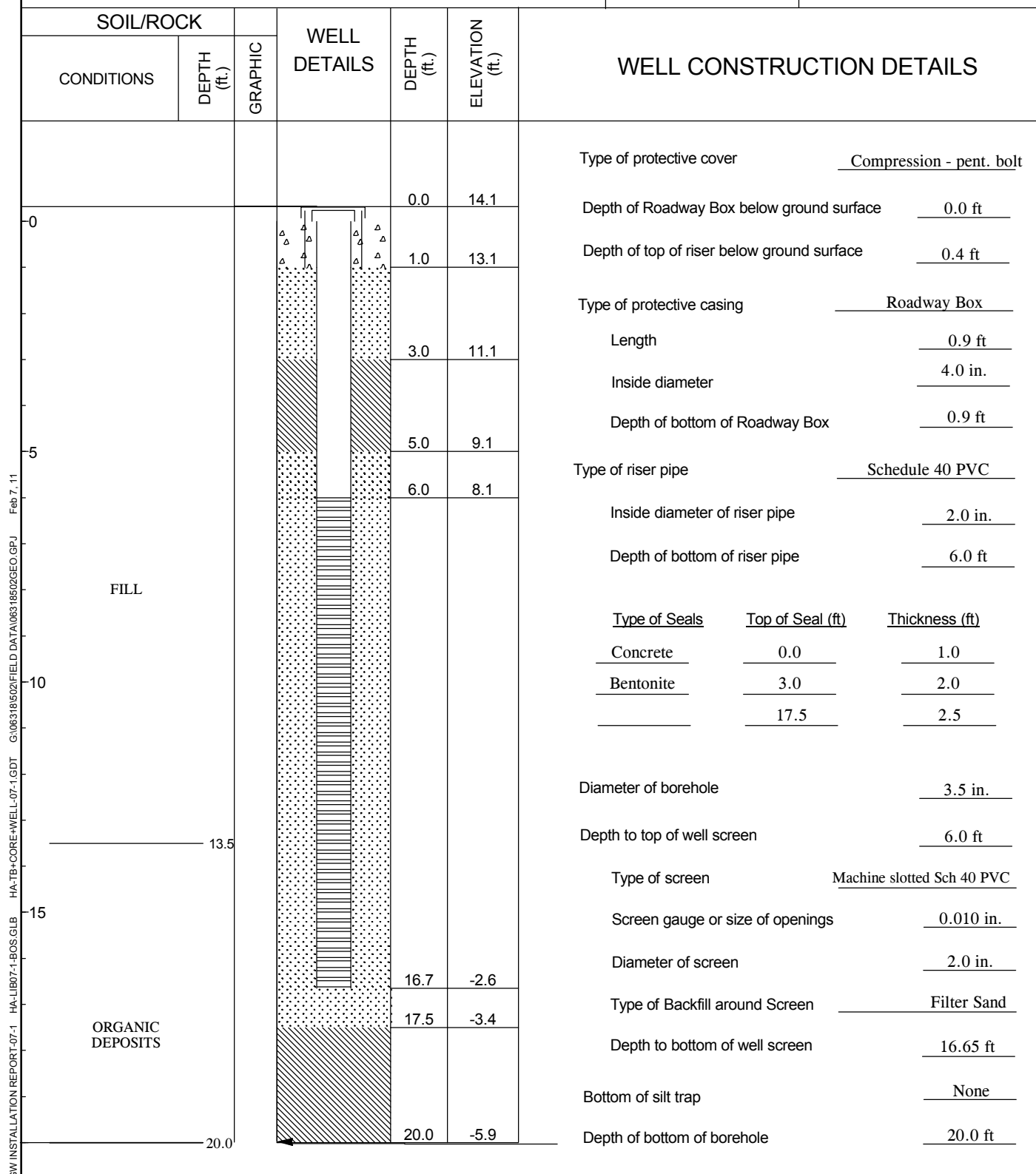
H&A Rep. M. Dodson

Location As planned-center of grid

Ground El. 14.1

Datum Boston City Base

Initial Water Level (depth bgs) ft



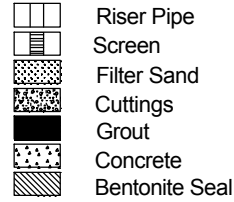
GROUNDWATER OBSERVATION WELL
INSTALLATION REPORT

Well No. HA106 (OW)

Boring No. HA106 (OW)

Project FORMER ENERGY INTERNATIONAL PARCEL
 Location BOSTON, MA
 Client THE MCCOURT-BRODERICK LIMITED PARTNERSHIP
 Contractor GEOLOGIC-EARTH EXPLORATION, INC.
 Driller D. Jacobs

Well Diagram



File No. 06318-502

Date Installed 1 Dec 2010

H&A Rep. M. Dodson

Location As planned-center of grid

Ground El. 15.2

Datum Boston City Base

Initial Water Level (depth bgs)

ft

SOIL/ROCK

CONDITIONS

DEPTH
(ft.)

GRAPHIC

WELL
DETAILSDEPTH
(ft.)ELEVATION
(ft.)

WELL CONSTRUCTION DETAILS

Type of protective cover Compression - pent. boltHeight of Roadway Box above ground surface 0.3 ftDepth of top of riser below ground surface 0.2 ftType of protective casing Roadway BoxLength 0.9 ftInside diameter 4.0 in.Depth of bottom of Roadway Box 0.6 ftType of riser pipe Schedule 40 PVCInside diameter of riser pipe 2.0 in.Depth of bottom of riser pipe 6.5 ft

Type of Seals	Top of Seal (ft)	Thickness (ft)
Concrete	0.3	0.7
Bentonite	3.5	2.0
	17.5	2.5

Diameter of borehole 3.5 in.Depth to top of well screen 6.5 ftType of screen Machine slotted Sch 40 PVCScreen gauge or size of openings 0.010 in.Diameter of screen 2.0 in.Type of Backfill around Screen Filter SandDepth to bottom of well screen 16.5 ftBottom of silt trap NoneDepth of bottom of borehole 20.0 ft

Feb 7, 11

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HA-TB-CORE-WELL-07-1.GDT

HA-LIB07-1-BOS.GLB

GW INSTALLATION REPORT-07-1

PROBABLE
RAILROAD
BALLAST

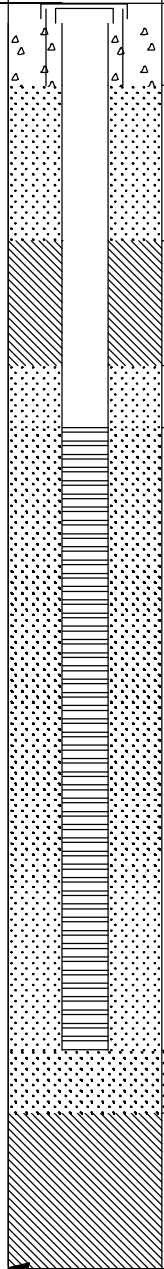
2.0

FILL

14.5

ORGANIC
DEPOSITS

20.0



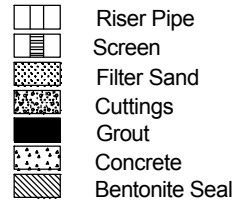
GROUNDWATER OBSERVATION WELL
INSTALLATION REPORT

Well No. HA111 (OW)

Boring No. HA111 (OW)

Project FORMER ENERGY INTERNATIONAL PARCEL
 Location BOSTON, MA
 Client THE MCCOURT-BRODERICK LIMITED PARTNERSHIP
 Contractor GEOLOGIC-EARTH EXPLORATION, INC.
 Driller D. Jacobs

Well Diagram



File No. 06318-502

Date Installed 29 Nov 2010

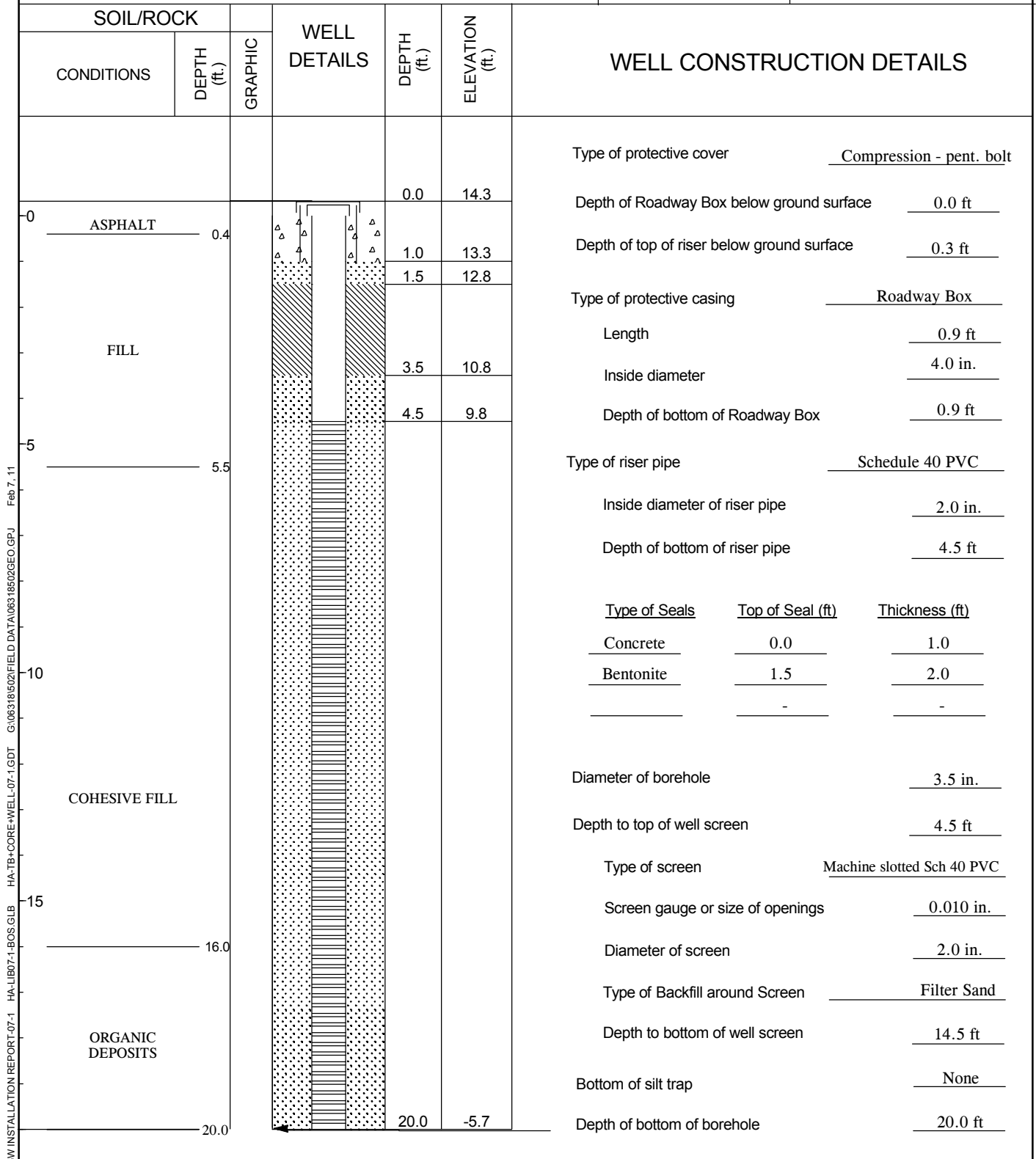
H&A Rep. M. Dodson

Location As planned-center of grid

Ground El. 14.3

Datum Boston City Base

Initial Water Level (depth bgs) 9.9 ft



Feb 7, 11

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APPENDIX D

Laboratory Analytical Reports – March 2012



ANALYTICAL REPORT

Lab Number:	L1203640
Client:	Haley & Aldrich, Inc. 465 Medford Street, Suite 2200 Charlestown, MA 02129-1400
ATTN:	Cole Worthy
Phone:	(617) 886-7341
Project Name:	FMR. ENERGY INT. PARCEL
Project Number:	06318-520
Report Date:	03/08/12

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NY (11148), CT (PH-0574), NH (2003), NJ NELAP (MA935), RI (LAO00065), ME (MA00086), PA (68-03671), USDA (Permit #P-330-11-00240), NC (666), TX (T104704476), DOD (L2217), US Army Corps of Engineers.

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com



Project Name: FMR. ENERGY INT. PARCEL
Project Number: 06318-520

Lab Number: L1203640
Report Date: 03/08/12

Alpha Sample ID	Client ID	Sample Location	Collection Date/Time
L1203640-01	HA-201 S1	495 TECH CTR.	03/02/12 08:10
L1203640-02	HA-201 S2	495 TECH CTR.	03/02/12 08:20
L1203640-03	HA-201 S3	495 TECH CTR.	03/02/12 08:25
L1203640-04	HA-201 S4	495 TECH CTR.	03/02/12 08:30
L1203640-05	HA-201 S5	495 TECH CTR.	03/02/12 08:35
L1203640-06	HA-201 S1B	495 TECH CTR.	03/02/12 08:15

Project Name: FMR. ENERGY INT. PARCEL

Lab Number: L1203640

Project Number: 06318-520

Report Date: 03/08/12

MADEP MCP Response Action Analytical Report Certification

This form provides certifications for all samples performed by MCP methods. Please refer to the Sample Results and Container Information sections of this report for specification of MCP methods used for each analysis. The following questions pertain only to MCP Analytical Methods.

An affirmative response to questions A through F is required for "Presumptive Certainty" status		
A	Were all samples received in a condition consistent with those described on the Chain-of-Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding times?	YES
B	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?	YES
C	Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?	YES
D	Does the laboratory report comply with all the reporting requirements specified in CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data?"	YES
E a.	VPH, EPH, and APH Methods only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications).	N/A
E b.	APH and TO-15 Methods only: Was the complete analyte list reported for each method?	N/A
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all "No" responses to Questions A through E)?	YES
A response to questions G, H and I is required for "Presumptive Certainty" status		
G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	YES
H	Were all QC performance standards specified in the CAM protocol(s) achieved?	YES
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	YES
For any questions answered "No", please refer to the case narrative section on the following page(s).		

Please note that sample matrix information is located in the Sample Results section of this report.



Project Name: FMR. ENERGY INT. PARCEL
Project Number: 06318-520

Lab Number: L1203640
Report Date: 03/08/12

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Performance criteria for CAM and RCP methods allow for some LCS compound failures to occur and still be within method compliance. In these instances, the specific failures are not narrated but are noted in the associated QC table. This information is also incorporated in the Data Usability format for our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

Please contact Client Services at 800-624-9220 with any questions.

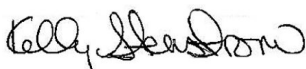
MCP Related Narratives

Report Submission

All MCP required questions were answered with affirmative responses; therefore, there are no relevant protocol-specific QC and/or performance standard non-conformances to report.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:

 Kelly Stenstrom

Title: Technical Director/Representative

Date: 03/08/12

ORGANICS

PCBS

Project Name: FMR. ENERGY INT. PARCEL**Lab Number:** L1203640**Project Number:** 06318-520**Report Date:** 03/08/12**SAMPLE RESULTS**

Lab ID: L1203640-01
Client ID: HA-201 S1
Sample Location: 495 TECH CTR.
Matrix: Soil
Analytical Method: 97,8082
Analytical Date: 03/05/12 15:05
Analyst: KB
Percent Solids: 84%

Date Collected: 03/02/12 08:10
Date Received: 03/02/12
Field Prep: Not Specified
Extraction Method: EPA 3540C
Extraction Date: 03/03/12 00:20
Cleanup Method1: EPA 3665A
Cleanup Date1: 03/05/12
Cleanup Method2: EPA 3660B
Cleanup Date2: 03/05/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Polychlorinated Biphenyls - Westborough Lab						
Aroclor 1016	ND		ug/kg	38.0	--	1
Aroclor 1221	ND		ug/kg	38.0	--	1
Aroclor 1232	ND		ug/kg	38.0	--	1
Aroclor 1242	ND		ug/kg	38.0	--	1
Aroclor 1248	ND		ug/kg	38.0	--	1
Aroclor 1260	104		ug/kg	38.0	--	1
Aroclor 1262	ND		ug/kg	38.0	--	1
Aroclor 1268	ND		ug/kg	38.0	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	79		30-150
Decachlorobiphenyl	72		30-150
2,4,5,6-Tetrachloro-m-xylene	78		30-150
Decachlorobiphenyl	75		30-150

Project Name: FMR. ENERGY INT. PARCEL**Lab Number:** L1203640**Project Number:** 06318-520**Report Date:** 03/08/12**SAMPLE RESULTS**

Lab ID: L1203640-01
Client ID: HA-201 S1
Sample Location: 495 TECH CTR.
Matrix: Soil
Analytical Method: 97,8082
Analytical Date: 03/05/12 15:05
Analyst: KB
Percent Solids: 84%

Date Collected: 03/02/12 08:10
Date Received: 03/02/12
Field Prep: Not Specified
Extraction Method: EPA 3540C
Extraction Date: 03/03/12 00:20
Cleanup Method1: EPA 3665A
Cleanup Date1: 03/05/12
Cleanup Method2: EPA 3660B
Cleanup Date2: 03/05/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Polychlorinated Biphenyls - Westborough Lab						
Aroclor 1254	121		ug/kg	38.0	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	79		30-150
Decachlorobiphenyl	72		30-150
2,4,5,6-Tetrachloro-m-xylene	78		30-150
Decachlorobiphenyl	75		30-150

Project Name: FMR. ENERGY INT. PARCEL**Lab Number:** L1203640**Project Number:** 06318-520**Report Date:** 03/08/12**SAMPLE RESULTS**

Lab ID: L1203640-02
Client ID: HA-201 S2
Sample Location: 495 TECH CTR.
Matrix: Soil
Analytical Method: 97,8082
Analytical Date: 03/05/12 15:20
Analyst: KB
Percent Solids: 84%

Date Collected: 03/02/12 08:20
Date Received: 03/02/12
Field Prep: Not Specified
Extraction Method: EPA 3540C
Extraction Date: 03/03/12 00:20
Cleanup Method1: EPA 3665A
Cleanup Date1: 03/05/12
Cleanup Method2: EPA 3660B
Cleanup Date2: 03/05/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Polychlorinated Biphenyls - Westborough Lab						
Aroclor 1016	ND		ug/kg	39.4	--	1
Aroclor 1221	ND		ug/kg	39.4	--	1
Aroclor 1232	ND		ug/kg	39.4	--	1
Aroclor 1242	ND		ug/kg	39.4	--	1
Aroclor 1248	ND		ug/kg	39.4	--	1
Aroclor 1260	103		ug/kg	39.4	--	1
Aroclor 1262	ND		ug/kg	39.4	--	1
Aroclor 1268	ND		ug/kg	39.4	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	83		30-150
Decachlorobiphenyl	78		30-150
2,4,5,6-Tetrachloro-m-xylene	83		30-150
Decachlorobiphenyl	84		30-150

Project Name: FMR. ENERGY INT. PARCEL**Lab Number:** L1203640**Project Number:** 06318-520**Report Date:** 03/08/12**SAMPLE RESULTS**

Lab ID: L1203640-02
Client ID: HA-201 S2
Sample Location: 495 TECH CTR.
Matrix: Soil
Analytical Method: 97,8082
Analytical Date: 03/05/12 15:20
Analyst: KB
Percent Solids: 84%

Date Collected: 03/02/12 08:20
Date Received: 03/02/12
Field Prep: Not Specified
Extraction Method: EPA 3540C
Extraction Date: 03/03/12 00:20
Cleanup Method1: EPA 3665A
Cleanup Date1: 03/05/12
Cleanup Method2: EPA 3660B
Cleanup Date2: 03/05/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Polychlorinated Biphenyls - Westborough Lab						
Aroclor 1254	118		ug/kg	39.4	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	83		30-150
Decachlorobiphenyl	78		30-150
2,4,5,6-Tetrachloro-m-xylene	83		30-150
Decachlorobiphenyl	84		30-150

Project Name: FMR. ENERGY INT. PARCEL**Lab Number:** L1203640**Project Number:** 06318-520**Report Date:** 03/08/12**SAMPLE RESULTS**

Lab ID: L1203640-03
Client ID: HA-201 S3
Sample Location: 495 TECH CTR.
Matrix: Soil
Analytical Method: 97,8082
Analytical Date: 03/05/12 15:36
Analyst: KB
Percent Solids: 78%

Date Collected: 03/02/12 08:25
Date Received: 03/02/12
Field Prep: Not Specified
Extraction Method: EPA 3540C
Extraction Date: 03/03/12 00:20
Cleanup Method1: EPA 3665A
Cleanup Date1: 03/05/12
Cleanup Method2: EPA 3660B
Cleanup Date2: 03/05/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Polychlorinated Biphenyls - Westborough Lab						
Aroclor 1016	ND		ug/kg	42.4	--	1
Aroclor 1221	ND		ug/kg	42.4	--	1
Aroclor 1232	ND		ug/kg	42.4	--	1
Aroclor 1242	ND		ug/kg	42.4	--	1
Aroclor 1248	ND		ug/kg	42.4	--	1
Aroclor 1254	ND		ug/kg	42.4	--	1
Aroclor 1260	ND		ug/kg	42.4	--	1
Aroclor 1262	ND		ug/kg	42.4	--	1
Aroclor 1268	ND		ug/kg	42.4	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	69		30-150
Decachlorobiphenyl	60		30-150
2,4,5,6-Tetrachloro-m-xylene	65		30-150
Decachlorobiphenyl	59		30-150

Project Name: FMR. ENERGY INT. PARCEL**Lab Number:** L1203640**Project Number:** 06318-520**Report Date:** 03/08/12**SAMPLE RESULTS**

Lab ID: L1203640-06
Client ID: HA-201 S1B
Sample Location: 495 TECH CTR.
Matrix: Soil
Analytical Method: 97,8082
Analytical Date: 03/05/12 15:51
Analyst: KB
Percent Solids: 86%

Date Collected: 03/02/12 08:15
Date Received: 03/02/12
Field Prep: Not Specified
Extraction Method: EPA 3540C
Extraction Date: 03/03/12 00:20
Cleanup Method1: EPA 3665A
Cleanup Date1: 03/05/12
Cleanup Method2: EPA 3660B
Cleanup Date2: 03/05/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Polychlorinated Biphenyls - Westborough Lab						
Aroclor 1016	ND		ug/kg	37.6	--	1
Aroclor 1221	ND		ug/kg	37.6	--	1
Aroclor 1232	ND		ug/kg	37.6	--	1
Aroclor 1242	ND		ug/kg	37.6	--	1
Aroclor 1248	ND		ug/kg	37.6	--	1
Aroclor 1254	238		ug/kg	37.6	--	1
Aroclor 1260	161		ug/kg	37.6	--	1
Aroclor 1262	ND		ug/kg	37.6	--	1
Aroclor 1268	ND		ug/kg	37.6	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	78		30-150
Decachlorobiphenyl	72		30-150
2,4,5,6-Tetrachloro-m-xylene	76		30-150
Decachlorobiphenyl	76		30-150

Project Name: FMR. ENERGY INT. PARCEL**Lab Number:** L1203640**Project Number:** 06318-520**Report Date:** 03/08/12

Method Blank Analysis Batch Quality Control

Analytical Method: 97,8082
 Analytical Date: 03/05/12 16:06
 Analyst: KB

Extraction Method: EPA 3540C
 Extraction Date: 03/03/12 00:20
 Cleanup Method1: EPA 3665A
 Cleanup Date1: 03/05/12
 Cleanup Method2: EPA 3660B
 Cleanup Date2: 03/05/12

Parameter	Result	Qualifier	Units	RL	MDL
MCP Polychlorinated Biphenyls - Westborough Lab for sample(s): 01-03,06 Batch: WG521225-1					
Aroclor 1016	ND		ug/kg	33.3	--
Aroclor 1221	ND		ug/kg	33.3	--
Aroclor 1232	ND		ug/kg	33.3	--
Aroclor 1242	ND		ug/kg	33.3	--
Aroclor 1248	ND		ug/kg	33.3	--
Aroclor 1254	ND		ug/kg	33.3	--
Aroclor 1260	ND		ug/kg	33.3	--
Aroclor 1262	ND		ug/kg	33.3	--
Aroclor 1268	ND		ug/kg	33.3	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	89		30-150
Decachlorobiphenyl	67		30-150
2,4,5,6-Tetrachloro-m-xylene	90		30-150
Decachlorobiphenyl	74		30-150

Lab Control Sample Analysis**Batch Quality Control****Project Name:** FMR. ENERGY INT. PARCEL**Lab Number:** L1203640**Project Number:** 06318-520**Report Date:** 03/08/12

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Polychlorinated Biphenyls - Westborough Lab Associated sample(s): 01-03,06 Batch: WG521225-2 WG521225-3								
Aroclor 1016	75		77		40-140	3		30
Aroclor 1260	71		72		40-140	1		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	85		91		30-150
Decachlorobiphenyl	71		79		30-150
2,4,5,6-Tetrachloro-m-xylene	79		85		30-150
Decachlorobiphenyl	73		81		30-150

INORGANICS & MISCELLANEOUS

Project Name: FMR. ENERGY INT. PARCEL**Project Number:** 06318-520**Lab Number:** L1203640**Report Date:** 03/08/12**SAMPLE RESULTS****Lab ID:** L1203640-01**Client ID:** HA-201 S1**Sample Location:** 495 TECH CTR.**Matrix:** Soil**Date Collected:** 03/02/12 08:10**Date Received:** 03/02/12**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	84		%	0.10	NA	1	-	03/06/12 14:33	30,2540G	SM



Project Name: FMR. ENERGY INT. PARCEL

Lab Number: L1203640

Project Number: 06318-520

Report Date: 03/08/12

SAMPLE RESULTS

Lab ID: L1203640-02

Date Collected: 03/02/12 08:20

Client ID: HA-201 S2

Date Received: 03/02/12

Sample Location: 495 TECH CTR.

Field Prep: Not Specified

Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	84		%	0.10	NA	1	-	03/06/12 14:33	30,2540G	SM



Project Name: FMR. ENERGY INT. PARCEL**Project Number:** 06318-520**Lab Number:** L1203640**Report Date:** 03/08/12**SAMPLE RESULTS****Lab ID:** L1203640-03**Client ID:** HA-201 S3**Sample Location:** 495 TECH CTR.**Matrix:** Soil**Date Collected:** 03/02/12 08:25**Date Received:** 03/02/12**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	78		%	0.10	NA	1	-	03/06/12 14:33	30,2540G	SM



Project Name: FMR. ENERGY INT. PARCEL**Project Number:** 06318-520**Lab Number:** L1203640**Report Date:** 03/08/12**SAMPLE RESULTS****Lab ID:** L1203640-06**Client ID:** HA-201 S1B**Sample Location:** 495 TECH CTR.**Matrix:** Soil**Date Collected:** 03/02/12 08:15**Date Received:** 03/02/12**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	86		%	0.10	NA	1	-	03/06/12 14:33	30,2540G	SM



Lab Duplicate Analysis
Batch Quality Control**Project Name:** FMR. ENERGY INT. PARCEL**Project Number:** 06318-520**Lab Number:** L1203640**Report Date:** 03/08/12

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-03,06 QC Batch ID: WG521658-1 QC Sample: L1203640-02 Client ID: HA-201 S2						
Solids, Total	84	85	%	1		20

Project Name: FMR. ENERGY INT. PARCEL**Project Number:** 06318-520**Lab Number:** L1203640**Report Date:** 03/08/12**Sample Receipt and Container Information**

Were project specific reporting limits specified?

YES

Reagent H2O Preserved Vials Frozen on: NA**Cooler Information Custody Seal****Cooler**

A Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1203640-01A	Amber 120ml unpreserved	A	N/A	2.8	Y	Absent	TS(7),MCP-8082-10-3540C(365)
L1203640-02A	Amber 120ml unpreserved	A	N/A	2.8	Y	Absent	TS(7),MCP-8082-10-3540C(365)
L1203640-03A	Amber 120ml unpreserved	A	N/A	2.8	Y	Absent	TS(7),MCP-8082-10-3540C(365)
L1203640-04A	Amber 120ml unpreserved	A	N/A	2.8	Y	Absent	HOLD(14)
L1203640-05A	Amber 120ml unpreserved	A	N/A	2.8	Y	Absent	HOLD(14)
L1203640-06A	Amber 120ml unpreserved	A	N/A	2.8	Y	Absent	TS(7),MCP-8082-10-3540C(365)

*Values in parentheses indicate holding time in days

Project Name: FMR. ENERGY INT. PARCEL
Project Number: 06318-520

Lab Number: L1203640
Report Date: 03/08/12

GLOSSARY

Acronyms

EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NI	- Not Ignitable.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

Footnotes

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

A	- Spectra identified as "Aldol Condensation Product".
B	- The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than five times (5x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit.
C	- Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
D	- Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
E	- Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
G	- The concentration may be biased high due to matrix interferences (i.e., co-elution) with non-target compound(s). The result should be considered estimated.
H	- The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
I	- The RPD between the results for the two columns exceeds the method-specified criteria; however, the lower value has been reported due to obvious interference.
M	- Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
NJ	- Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

Report Format: Data Usability Report



Project Name: FMR. ENERGY INT. PARCEL
Project Number: 06318-520

Lab Number: L1203640
Report Date: 03/08/12

Data Qualifiers

- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- J** - Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- ND** - Not detected at the reporting limit (RL) for the sample.

Project Name: FMR. ENERGY INT. PARCEL
Project Number: 06318-520

Lab Number: L1203640
Report Date: 03/08/12

REFERENCES

- 30 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.
- 97 EPA Test Methods (SW-846) with QC Requirements & Performance Standards for the Analysis of EPA SW-846 Methods under the Massachusetts Contingency Plan, WSC-CAM-IIA, IIB, IIIA, IIIB, IIIC, IIID, VA, VB, VC, VIA, VIB, VIIIA and VIIIB, July 2010.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Certificate/Approval Program Summary

Last revised January 30, 2012 - Westboro Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0574. **NELAP Accredited Solid Waste/Soil.**

Drinking Water (Inorganic Parameters: Color, pH, Turbidity, Conductivity, Alkalinity, Chloride, Free Residual Chlorine, Fluoride, Calcium Hardness, Sulfate, Nitrate, Nitrite, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Vanadium, Zinc, Total Dissolved Solids, Total Organic Carbon, Total Cyanide, Perchlorate. Organic Parameters: Volatile Organics 524.2, Total Trihalomethanes 524.2, 1,2-Dibromo-3-chloropropane (DBCP), Ethylene Dibromide (EDB), 1,4-Dioxane (Mod 8270). Microbiology Parameters: Total Coliform-MF mEndo (SM9222B), Total Coliform – Colilert (SM9223 P/A), E. Coli. – Colilert (SM9223 P/A), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D))

Wastewater/Non-Potable Water (Inorganic Parameters: Color, pH, Conductivity, Acidity, Alkalinity, Chloride, Total Residual Chlorine, Fluoride, Total Hardness, Silica, Sulfate, Sulfide, Ammonia, Kjeldahl Nitrogen, Nitrate, Nitrite, O-Phosphate, Total Phosphorus, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Dissolved Solids, Total Suspended Solids (non-filterable), BOD, CBOD, COD, TOC, Total Cyanide, Phenolics, Foaming Agents (MBAS), Bromide, Oil and Grease. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, 2,4-D, 2,4,5-T, 2,4,5-TP(Silvex), Acid Extractables (Phenols), Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, Polynuclear Aromatic Hydrocarbons, Haloethers, Chlorinated Hydrocarbons, Volatile Organics, TPH (HEM/SGT), Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH. Microbiology Parameters: Total Coliform – MF mEndo (SM9222B), Total Coliform – MTF (SM9221B), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform – A-1 Broth (SM9221E).)

Solid Waste/Soil (Inorganic Parameters: pH, Sulfide, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Tin, Vanadium, Zinc, Total Cyanide, Ignitability, Phenolics, Corrosivity, TCLP Leach (1311), SPLP Leach (1312 metals only), Reactivity. Organic Parameters: PCBs, PCBs in Oil, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH, Dicamba, 2,4-D, 2,4,5-T, 2,4,5-TP(Silvex), Volatile Organics, Acid Extractables (Phenols), 3,3'-Dichlorobenzidine, Phthalates, Nitrosamines, Nitroaromatics & Cyclic Ketones, PAHs, Haloethers, Chlorinated Hydrocarbons.)

Maine Department of Human Services Certificate/Lab ID: 2009024.

Drinking Water (Inorganic Parameters: SM9215B, 9222D, 9223B, EPA 180.1, 353.2, SM2130B, 2320B, 2540C, 4500Cl-D, 4500CN-C, 4500CN-E, 4500F-C, 4500H+B, 4500NO3-F, EPA 200.7, EPA 200.8, 245.1, EPA 300.0. Organic Parameters: 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 350.1, 351.1, 353.2, 410.4, 420.1, SM2320B, 2510B, 2540C, 2540D, 426C, 4500Cl-D, 4500Cl-E, 4500CN-C, 4500CN-E, 4500F-B, 4500F-C, 4500H+B, 4500Norg-B, 4500Norg-C, 4500NH3-B, 4500NH3-G, 4500NH3-H, 4500NO3-F, 4500P-B, 4500P-E, 5210B, 5220D, 5310C, 9010B, 9040B, 9030B, 7470A, 7196A, 2340B, EPA 200.7, 6010, 200.8, 6020, 245.1, 1311, 1312, 3005A, Enterolert, 9223D, 9222D. Organic Parameters: 608, 8081, 8082, 8330, 8151A, 624, 8260, 3510C, 3630C, 5030B, ME-DRO, ME-GRO, MA-EPH, MA-VPH.)

Solid Waste/Soil (Inorganic Parameters: 9010B, 9012A, 9014A, 9040B, 9045C, 6010B, 7471A, 7196A, 9050A, 1010, 1030, 9065, 1311, 1312, 3005A, 3050B. Organic Parameters: ME-DRO, ME-GRO, MA-EPH, MA-VPH, 8260B, 8270C, 8330, 8151A, 8081A, 8082, 3540C, 3546, 3580A, 3630C, 5030B, 5035.)

Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA086.

Drinking Water (Inorganic Parameters: (EPA 200.8 for: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl) (EPA 200.7 for: Ba,Be,Ca,Cd,Cr,Cu,Na,Ni) 245.1, (300.0 for: Nitrate-N, Fluoride, Sulfate); (EPA 353.2 for: Nitrate-N, Nitrite-N); (SM4500NO3-F for: Nitrate-N and Nitrite-N); 4500F-C, 4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, 2320B, SM2540C, SM4500H-B. Organic Parameters: (EPA 524.2 for: Trihalomethanes, Volatile Organics); (504.1 for: 1,2-Dibromoethane, 1,2-Dibromo-3-Chloropropane), EPA 332. Microbiology Parameters: SM9215B; ENZ. SUB. SM9223; ColilertQT SM9223B; MF-SM9222D.)

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for: *Non-Potable Water* (Inorganic Parameters:, (EPA 200.8 for: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn); (EPA 200.7 for: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn); 245.1, SM4500H,B, EPA 120.1,

SM2510B, 2540C, 2340B, 2320B, 4500CL-E, 4500F-BC, 426C, SM4500NH3-BH, (EPA 350.1 for: Ammonia-N), LACHAT 10-107-06-1-B for Ammonia-N, SM4500NO3-F, 353.2 for Nitrate-N, SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, 4500P-B,E, 5220D, EPA 410.4, SM 5210B, 5310C, 4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.

Organic Parameters: (EPA 624 for Volatile Halocarbons, Volatile Aromatics),(608 for: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs-Water), (EPA 625 for SVOC Acid Extractables and SVOC Base/Neutral Extractables), 600/4-81-045-PCB-Oil. Microbiology Parameters: (ColilertQT SM9223B;Enterolert-QT: SM9222D-MF.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 200307. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: SM 9222B, 9223B, 9215B, EPA 200.7, 200.8, 245.2, 300.0, SM4500CN-E, 4500H+B, 4500NO3-F, 2320B, 2510B, 2540C, 4500F-C, 5310C, 2120B, EPA 332.0. Organic Parameters: 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM9222D, 9221B, 9222B, 9221E-EC, EPA 3005A, 200.7, 200.8, 245.1, 245.2, SW-846 6010B, 6020, 7196A, 7470A, SM3500-CR-D, EPA 120.1, 300.0, 350.1, 350.2, 351.1, 353.2, 410.4, 420.1, 1664A, SW-846 9010, 9030, 9040B, SM426C, SM2120B, 2310B, 2320B, 2540B, 2540D, 4500H+B, 4500CL-E, 4500CN-E, 4500NH3-H, 4500NO3-F, 4500NO2-B, 4500P-E, 4500-S2-D, 5210B, 5220D, 2510B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D. Organic Parameters: SW-846 3510C, 3630C, 5030B, 8260B, 8270C, 8330, EPA 624, 625, 608, SW-846 8082, 8081A, 8151A.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 6010B, 7196A, 7471A, 1010, 1030, 9010, 9012A, 9014, 9030B, 9040B, 9045C, 9050C, 9065,1311, 1312, 3005A, 3050B. Organic Parameters: SW-846 3540C, 3546, 3550B, 3580A, 3630C, 5030B, 5035, 8260B, 8270C, 8330, 8151A, 8015B, 8082, 8081A.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA935. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: SM9222B, 9221E, 9223B, 9215B, 4500CN-CE, 4500NO3-F, 4500F-C, EPA 300.0, 200.7, 200.8, 245.2, 2540C, SM2120B, 2320B, 2510B, 5310C, SM4500H-B. Organic Parameters: EPA 332, 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM5210B, EPA 410.4, SM5220D, 4500CI-E, EPA 300.0, SM2120B, SM4500F-BC, EPA 200.7, 351.1, LACHAT 10-107-06-2-D, EPA 353.2, SM4500NO3-F, 4500NO2-B, EPA 1664A, SM5310B, C or D, 4500-PE, EPA 420.1, SM510ABC, SM4500P-B5+E, 2540B, 2540C, 2540D, EPA 120.1, SM2510B, SM15 426C, 9222D, 9221B, 9221C, 9221E, 9222B, 9215B, 2310B, 2320B, 4500NH3-H, 4500-S D, EPA 350.1, 350.2, SW-846 1312, 6020, 6020A, 7470A, 5540C, 4500H-B, EPA 200.8, SM3500Cr-D, 4500CN-CE, EPA 245.1, 245.2, SW-846 9040B, 3005A, 3015, EPA 6010B, 6010C, 7196A, 3060A, SW-846 9010B, 9030B. Organic Parameters: SW-846 8260B, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3510C, EPA 608, 624, 625, SW-846 3630C, 5030B, 8081A, 8081B, 8082, 8082A, 8151A, 8330, NJ OQA-QAM-025 Rev.7, NJ EPH.)

Solid & Chemical Materials (Inorganic Parameters: SW-846, 6010B, 6010C, 7196A, 3060A, 9010B, 9030B, 1010, 1030, 1311, 1312, 3005A, 3050B, 7471A, 7471B, 9014, 9012A, 9040B, 9045C, 9050A, 9065. Organic Parameters: SW-846 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 8260B, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3540C, 3545, 3546, 3550B, 3580A, 3630C, 5030B, 5035L, 5035H, NJ OQA-QAM-025 Rev.7, NJ EPH.)

New York Department of Health Certificate/Lab ID: 11148. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: SM9223B, 9222B, 9215B, EPA 200.8, 200.7, 245.2, SM5310C, EPA 332.0, SM2320B, EPA 300.0, SM2120B, 4500CN-E, 4500F-C, 4500H-B, 4500NO3-F, 2540C, SM 2510B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: SM9221E, 9222D, 9221B, 9222B, 9215B, 5210B, 5310C, EPA 410.4, SM5220D, 2310B-4a, 2320B, EPA 200.7, 300.0, SM4500CL-E, 4500F-C, SM15 426C, EPA 350.1, SM4500NH3-BH, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, LACHAT 10-107-04-1-C, SM4500-NO3-F, 4500-NO2-B, 4500P-E, 2540C, 2540B, 2540D, EPA 200.8, EPA 6010B, 6020, EPA 7196A, SM3500Cr-D, EPA 245.1, 245.2, 7470A, SM2120B, LACHAT 10-204-00-1-A, EPA 9040B, SM4500-HB, EPA 1664A, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, SM4500S-D, SM5540C, EPA 3005A, 9010B, 9030B.. Organic Parameters: EPA 624, 8260B, 8270C, 625, 608, 8081A, 8151A, 8330, 8082, EPA 3510C, 5030B.)

Solid & Hazardous Waste (Inorganic Parameters: 1010, 1030, EPA 6010B, 7196A, 7471A, 9012A, 9014, 9040B, 9045C, 9065, 9050, EPA 1311, 1312, 3005A, 3050B, 9010B, 9030B. Organic Parameters: EPA 8260B, 8270C, 8015B, 8081A, 8151A, 8330, 8082, 3540C, 3545, 3546, 3580, 5030B, 5035.)

North Carolina Department of the Environment and Natural Resources Certificate/Lab ID : 666. Organic Parameters: MA-EPH, MA-VPH.

Pennsylvania Department of Environmental Protection Certificate/Lab ID : 68-03671. **NELAP Accredited.**
Drinking Water (Organic Parameters: EPA 524.2, 504.1)

Non-Potable Water (Inorganic Parameters: EPA 1312, 200.7, 410.4, 1664A, SM2540D, 5210B, 5220D, 4500-P, BE. Organic Parameters: EPA 3510C, 3005A, 3630C, 5030B, 625, 624, 608, 8081A, 8081B, 8082, 802A, 8151A, 8260B, 8270C, 8270D, 8330)

Solid & Hazardous Waste (Inorganic Parameters: EPA 350.1, 1010, 1030, 1311, 1312, 3050B, 3060A, 6010B, 6010C, 7196A, 7471A, 9010B, 9012A, 9014, 9040B, 9045C, 9050, 9065, SM 4500NH3-H. Organic Parameters: 3540C, 3546, 3580A, 3630C, 5035, 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8260B, 8270C, 8270D, 8330)

Rhode Island Department of Health Certificate/Lab ID: LAO00065. **NELAP Accredited via NY-DOH.**

Refer to MA-DEP Certificate for Potable and Non-Potable Water.

Refer to NJ-DEP Certificate for Potable and Non-Potable Water.

Texas Commission on Environmental Quality Certificate/Lab ID: T104704476-09-1. **NELAP Accredited.**

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664, 200.7, 200.8, 245.1, 245.2, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 6010, 6020, 7196, 7470, 9040, SM 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CL-E, 4500CN-E, 4500F-C, 4500H+B, 4500NH3-H, 4500NO2B, 4500P-E, 4500 S²⁻ D, 510C, 5210B, 5220D, 5310C, 5540C. Organic Parameters: EPA 608, 624, 625, 8081, 8082, 8151, 8260, 8270, 8330.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 1312, 9012, 9014, 9040, 9045, 9050, 9065.)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID: 460195. **NELAP Accredited.**

Non-Potable Water (Inorganic Parameters: EPA 3005A, 3015, 1312, 6010B, 6010C, SM4500S-D, SM4500-CN-CE, Lachat 10-204-00-1-X. Organic Parameters: EPA 8260B)

Solid & Hazardous Waste (Inorganic Parameters: EPA 3050B, 1311, 1312, 6010B, 6010C, 9030B, 9010B, 9012A, 9014. Organic Parameters: EPA 5035, 5030B, 8260B.)

Department of Defense, L-A-B Certificate/Lab ID: L2217.

Drinking Water (Inorganic Parameters: SM 4500H-B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: EPA 200.7, 200.8, 6010B, 6020, 245.1, 245.2, 7470A, 9040B, 300.0, 332.0, 6860, 353.2, 410.4, 9060, 1664A, SM 4500CN-E, 4500H-B, 4500NO3-F, 5220D, 5310C, 2320B, 2540C, 3005A, 3015, 9010B, 9056. Organic Parameters: EPA 8260B, 8270C, 8330A, 625, 8082, 8081A, 3510C, 5030B, MassDEP EPH, MassDEP VPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 200.7, 6010B, 7471A, 9010, 9012A, 6860, 1311, 1312, 3050B, 7196A, 9010B, 3500-CR-D, 4500CN-CE, 2540G, Organic Parameters: EPA 8260B, 8270C, 8330A/B-prep, 8082, 8081A, 3540C, 3546, 3580A, 5035A, MassDEP EPH, MassDEP VPH.)

The following analytes are not included in our current NELAP/TNI Scope of Accreditation:

EPA 8260B: Freon-113, 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene. **EPA 8330A**: PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT. **EPA 8270C**: Methyl naphthalene, Dimethyl naphthalene, Total Methylnaphthalenes, Total Dimethylnaphthalenes, 1,4-Diphenylhydrazine (Azobenzene). **EPA 625**: 4-Chloroaniline, 4-Methylphenol. Total Phosphorus in a soil matrix, Chloride in a soil matrix, TKN in a soil matrix, NO₂ in a soil matrix, NO₃ in a soil matrix, SO₄ in a soil matrix.

CHAIN OF CUSTODY RECORD

ALPHA Job # L12036410

H&A FILE NO. 00318-523
PROJECT NAME Emc Energy Int. Pass
H&A CONTACT Cole Worthy

LABORATORY Advent
ADDRESS 495 Tech Ctr
CONTACT
DELIVERY DATE
TURNAROUND TIME
PROJECT MANAGER

Phone (617) 886-7400
Fax (617) 886-7600
Page 1 of 1

Sample No.	Date	Time	Depth	Type	Analysis Requested										Number of Containers	Comments (special instructions, precautions, additional method numbers, etc.)			
					VOA	ABNs PAH only	MCP Metals	Pesticides PCBs	VPH Full Suite C-ranges only	EPH Full Suite C-ranges only	TPH (specify)	TCLP (specify)	Reactivity Ignitability Corrosivity						
HA-201 S1	3/2/12	0810	0-0.5	Soil															
HA-201 S2		0820	1-2																
HA-201 S3		0825	2-3																
HA-201 S4		0830	3-5																
HA-201 S5		0835	5-7																
HA-201 S1B		0815	0-0.5																

② PCB's by Soxhlet extract
3500C
② H&A pending analysis
of samples
Contact Cole Worthy
for info

Sampled and Relinquished by		Received by		Relinquished by		Received by		Relinquished by		Received by		Relinquished by		Received by					
Sign <u>Charles R. K...</u>	Print <u>Charles R. K...</u>	Sign <u>Charles R. K...</u>	Print <u>Charles R. K...</u>	Sign <u>Charles R. K...</u>	Print <u>Charles R. K...</u>	Sign <u>Charles R. K...</u>	Print <u>Charles R. K...</u>	Sign <u>Charles R. K...</u>	Print <u>Charles R. K...</u>	Sign <u>Charles R. K...</u>	Print <u>Charles R. K...</u>	Sign <u>Charles R. K...</u>	Print <u>Charles R. K...</u>	Sign <u>Charles R. K...</u>	Print <u>Charles R. K...</u>				
Date <u>3/2/12</u>	Time <u>15:15</u>	Date <u>3/2/12</u>	Time <u>15:15</u>	Date <u>3/2/12</u>	Time <u>15:15</u>	Date <u>3/2/12</u>	Time <u>15:15</u>	Date <u>3/2/12</u>	Time <u>15:15</u>	Date <u>3/2/12</u>	Time <u>15:15</u>	Date <u>3/2/12</u>	Time <u>15:15</u>	Date <u>3/2/12</u>	Time <u>15:15</u>				
LIQUID				SOLID				PRESERVATION KEY				EVIDENCE							
<div> <div> <input type="checkbox"/> A Sample chilled</div> <div> <input type="checkbox"/> B Sample filtered</div> </div>				<div> <div> <input type="checkbox"/> C NaOH</div> <div> <input type="checkbox"/> D HNO₃</div> </div>				<div> <div> <input type="checkbox"/> E H₂SO₄</div> <div> <input type="checkbox"/> F HCl</div> </div>				<div> <div> <input type="checkbox"/> G Methanol</div> <div> <input type="checkbox"/> H Water/NatISO4 (circle)</div> </div>				<div> <input type="checkbox"/> RC-S1</div> <div> <input type="checkbox"/> RC-S2</div> <div> <input type="checkbox"/> RC-GW1</div> <div> <input type="checkbox"/> RC-GW2</div>			



ANALYTICAL REPORT

Lab Number:	L1203630
Client:	Haley & Aldrich, Inc. 465 Medford Street, Suite 2200 Charlestown, MA 02129-1400
ATTN:	Cole Worthy
Phone:	(617) 886-7341
Project Name:	FMR ENERGY INT. PARCEL
Project Number:	06318-520
Report Date:	03/08/12

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NY (11148), CT (PH-0574), NH (2003), NJ NELAP (MA935), RI (LAO00065), ME (MA00086), PA (68-03671), USDA (Permit #P-330-11-00240), NC (666), TX (T104704476), DOD (L2217), US Army Corps of Engineers.

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com



Project Name: FMR ENERGY INT. PARCEL
Project Number: 06318-520

Lab Number: L1203630
Report Date: 03/08/12

Alpha Sample ID	Client ID	Sample Location	Collection Date/Time
L1203630-01	HA-202 S1	495 TECH CTR.	03/02/12 08:45
L1203630-02	HA-202 S2	495 TECH CTR.	03/02/12 09:00
L1203630-03	HA-202 S3	495 TECH CTR.	03/02/12 09:10
L1203630-04	HA-202 S4	495 TECH CTR.	03/02/12 09:20
L1203630-05	HA-202 S5	495 TECH CTR.	03/02/12 09:30
L1203630-06	HA-203 S1	495 TECH CTR.	03/02/12 09:45
L1203630-07	HA-203 S2	495 TECH CTR.	03/02/12 09:50
L1203630-08	HA-203 S3	495 TECH CTR.	03/02/12 09:55
L1203630-09	HA-203 S4	495 TECH CTR.	03/02/12 10:10
L1203630-10	HA-203 S5	495 TECH CTR.	03/02/12 10:15

Project Name: FMR ENERGY INT. PARCEL

Lab Number: L1203630

Project Number: 06318-520

Report Date: 03/08/12

MADEP MCP Response Action Analytical Report Certification

This form provides certifications for all samples performed by MCP methods. Please refer to the Sample Results and Container Information sections of this report for specification of MCP methods used for each analysis. The following questions pertain only to MCP Analytical Methods.

An affirmative response to questions A through F is required for "Presumptive Certainty" status		
A	Were all samples received in a condition consistent with those described on the Chain-of-Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding times?	YES
B	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?	YES
C	Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?	YES
D	Does the laboratory report comply with all the reporting requirements specified in CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data?"	YES
E a.	VPH, EPH, and APH Methods only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications).	N/A
E b.	APH and TO-15 Methods only: Was the complete analyte list reported for each method?	N/A
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all "No" responses to Questions A through E)?	YES
A response to questions G, H and I is required for "Presumptive Certainty" status		
G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	YES
H	Were all QC performance standards specified in the CAM protocol(s) achieved?	YES
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	YES
For any questions answered "No", please refer to the case narrative section on the following page(s).		

Please note that sample matrix information is located in the Sample Results section of this report.



Project Name: FMR ENERGY INT. PARCEL
Project Number: 06318-520

Lab Number: L1203630
Report Date: 03/08/12

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Performance criteria for CAM and RCP methods allow for some LCS compound failures to occur and still be within method compliance. In these instances, the specific failures are not narrated but are noted in the associated QC table. This information is also incorporated in the Data Usability format for our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

Please contact Client Services at 800-624-9220 with any questions.

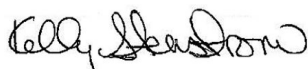
MCP Related Narratives

Report Submission

All MCP required questions were answered with affirmative responses; therefore, there are no relevant protocol-specific QC and/or performance standard non-conformances to report.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:

 Kelly Stenstrom

Title: Technical Director/Representative

Date: 03/08/12

ORGANICS

PCBS

Project Name: FMR ENERGY INT. PARCEL**Lab Number:** L1203630**Project Number:** 06318-520**Report Date:** 03/08/12**SAMPLE RESULTS**

Lab ID: L1203630-01
Client ID: HA-202 S1
Sample Location: 495 TECH CTR.
Matrix: Soil
Analytical Method: 97,8082
Analytical Date: 03/05/12 12:42
Analyst: KB
Percent Solids: 94%

Date Collected: 03/02/12 08:45
Date Received: 03/02/12
Field Prep: Not Specified
Extraction Method: EPA 3540C
Extraction Date: 03/03/12 01:35
Cleanup Method1: EPA 3665A
Cleanup Date1: 03/05/12
Cleanup Method2: EPA 3660B
Cleanup Date2: 03/05/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Polychlorinated Biphenyls - Westborough Lab						
Aroclor 1016	ND		ug/kg	35.4	--	1
Aroclor 1221	ND		ug/kg	35.4	--	1
Aroclor 1232	ND		ug/kg	35.4	--	1
Aroclor 1242	ND		ug/kg	35.4	--	1
Aroclor 1248	158		ug/kg	35.4	--	1
Aroclor 1254	190		ug/kg	35.4	--	1
Aroclor 1260	125		ug/kg	35.4	--	1
Aroclor 1262	ND		ug/kg	35.4	--	1
Aroclor 1268	ND		ug/kg	35.4	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	78		30-150
Decachlorobiphenyl	82		30-150
2,4,5,6-Tetrachloro-m-xylene	68		30-150
Decachlorobiphenyl	84		30-150

Project Name: FMR ENERGY INT. PARCEL**Lab Number:** L1203630**Project Number:** 06318-520**Report Date:** 03/08/12**SAMPLE RESULTS**

Lab ID: L1203630-02
Client ID: HA-202 S2
Sample Location: 495 TECH CTR.
Matrix: Soil
Analytical Method: 97,8082
Analytical Date: 03/05/12 12:55
Analyst: KB
Percent Solids: 85%

Date Collected: 03/02/12 09:00
Date Received: 03/02/12
Field Prep: Not Specified
Extraction Method: EPA 3540C
Extraction Date: 03/03/12 01:35
Cleanup Method1: EPA 3665A
Cleanup Date1: 03/05/12
Cleanup Method2: EPA 3660B
Cleanup Date2: 03/05/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Polychlorinated Biphenyls - Westborough Lab						
Aroclor 1016	ND		ug/kg	38.6	--	1
Aroclor 1221	ND		ug/kg	38.6	--	1
Aroclor 1232	ND		ug/kg	38.6	--	1
Aroclor 1242	ND		ug/kg	38.6	--	1
Aroclor 1248	233		ug/kg	38.6	--	1
Aroclor 1262	ND		ug/kg	38.6	--	1
Aroclor 1268	ND		ug/kg	38.6	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	74		30-150
Decachlorobiphenyl	84		30-150
2,4,5,6-Tetrachloro-m-xylene	67		30-150
Decachlorobiphenyl	89		30-150

Project Name: FMR ENERGY INT. PARCEL**Lab Number:** L1203630**Project Number:** 06318-520**Report Date:** 03/08/12**SAMPLE RESULTS**

Lab ID: L1203630-02
Client ID: HA-202 S2
Sample Location: 495 TECH CTR.
Matrix: Soil
Analytical Method: 97,8082
Analytical Date: 03/05/12 12:55
Analyst: KB
Percent Solids: 85%

Date Collected: 03/02/12 09:00
Date Received: 03/02/12
Field Prep: Not Specified
Extraction Method: EPA 3540C
Extraction Date: 03/03/12 01:35
Cleanup Method1: EPA 3665A
Cleanup Date1: 03/05/12
Cleanup Method2: EPA 3660B
Cleanup Date2: 03/05/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Polychlorinated Biphenyls - Westborough Lab						
Aroclor 1254	319		ug/kg	38.6	--	1
Aroclor 1260	177		ug/kg	38.6	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	74		30-150
Decachlorobiphenyl	84		30-150
2,4,5,6-Tetrachloro-m-xylene	67		30-150
Decachlorobiphenyl	89		30-150

Project Name: FMR ENERGY INT. PARCEL
Project Number: 06318-520

Lab Number: L1203630
Report Date: 03/08/12

SAMPLE RESULTS

Lab ID: L1203630-03
 Client ID: HA-202 S3
 Sample Location: 495 TECH CTR.
 Matrix: Soil
 Analytical Method: 97,8082
 Analytical Date: 03/05/12 13:07
 Analyst: KB
 Percent Solids: 78%

Date Collected: 03/02/12 09:10
 Date Received: 03/02/12
 Field Prep: Not Specified
 Extraction Method: EPA 3540C
 Extraction Date: 03/03/12 01:35
 Cleanup Method1: EPA 3665A
 Cleanup Date1: 03/05/12
 Cleanup Method2: EPA 3660B
 Cleanup Date2: 03/05/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Polychlorinated Biphenyls - Westborough Lab						
Aroclor 1016	ND		ug/kg	41.0	--	1
Aroclor 1221	ND		ug/kg	41.0	--	1
Aroclor 1232	ND		ug/kg	41.0	--	1
Aroclor 1242	ND		ug/kg	41.0	--	1
Aroclor 1248	ND		ug/kg	41.0	--	1
Aroclor 1254	ND		ug/kg	41.0	--	1
Aroclor 1260	ND		ug/kg	41.0	--	1
Aroclor 1262	ND		ug/kg	41.0	--	1
Aroclor 1268	ND		ug/kg	41.0	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	77		30-150
Decachlorobiphenyl	81		30-150
2,4,5,6-Tetrachloro-m-xylene	70		30-150
Decachlorobiphenyl	88		30-150

Project Name: FMR ENERGY INT. PARCEL**Lab Number:** L1203630**Project Number:** 06318-520**Report Date:** 03/08/12**SAMPLE RESULTS**

Lab ID: L1203630-06
Client ID: HA-203 S1
Sample Location: 495 TECH CTR.
Matrix: Soil
Analytical Method: 97,8082
Analytical Date: 03/05/12 13:19
Analyst: KB
Percent Solids: 84%

Date Collected: 03/02/12 09:45
Date Received: 03/02/12
Field Prep: Not Specified
Extraction Method: EPA 3540C
Extraction Date: 03/03/12 01:35
Cleanup Method1: EPA 3665A
Cleanup Date1: 03/05/12
Cleanup Method2: EPA 3660B
Cleanup Date2: 03/05/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Polychlorinated Biphenyls - Westborough Lab						
Aroclor 1016	ND		ug/kg	39.5	--	1
Aroclor 1221	ND		ug/kg	39.5	--	1
Aroclor 1232	ND		ug/kg	39.5	--	1
Aroclor 1242	ND		ug/kg	39.5	--	1
Aroclor 1248	155		ug/kg	39.5	--	1
Aroclor 1254	150		ug/kg	39.5	--	1
Aroclor 1262	ND		ug/kg	39.5	--	1
Aroclor 1268	ND		ug/kg	39.5	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	73		30-150
Decachlorobiphenyl	79		30-150
2,4,5,6-Tetrachloro-m-xylene	67		30-150
Decachlorobiphenyl	88		30-150

Project Name: FMR ENERGY INT. PARCEL**Lab Number:** L1203630**Project Number:** 06318-520**Report Date:** 03/08/12**SAMPLE RESULTS**

Lab ID: L1203630-06
Client ID: HA-203 S1
Sample Location: 495 TECH CTR.
Matrix: Soil
Analytical Method: 97,8082
Analytical Date: 03/05/12 13:19
Analyst: KB
Percent Solids: 84%

Date Collected: 03/02/12 09:45
Date Received: 03/02/12
Field Prep: Not Specified
Extraction Method: EPA 3540C
Extraction Date: 03/03/12 01:35
Cleanup Method1: EPA 3665A
Cleanup Date1: 03/05/12
Cleanup Method2: EPA 3660B
Cleanup Date2: 03/05/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Polychlorinated Biphenyls - Westborough Lab						
Aroclor 1260	101		ug/kg	39.5	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	73		30-150
Decachlorobiphenyl	79		30-150
2,4,5,6-Tetrachloro-m-xylene	67		30-150
Decachlorobiphenyl	88		30-150

Project Name: FMR ENERGY INT. PARCEL**Lab Number:** L1203630**Project Number:** 06318-520**Report Date:** 03/08/12**SAMPLE RESULTS**

Lab ID: L1203630-07
Client ID: HA-203 S2
Sample Location: 495 TECH CTR.
Matrix: Soil
Analytical Method: 97,8082
Analytical Date: 03/05/12 13:32
Analyst: KB
Percent Solids: 90%

Date Collected: 03/02/12 09:50
Date Received: 03/02/12
Field Prep: Not Specified
Extraction Method: EPA 3540C
Extraction Date: 03/03/12 01:35
Cleanup Method1: EPA 3665A
Cleanup Date1: 03/05/12
Cleanup Method2: EPA 3660B
Cleanup Date2: 03/05/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Polychlorinated Biphenyls - Westborough Lab						
Aroclor 1016	ND		ug/kg	35.1	--	1
Aroclor 1221	ND		ug/kg	35.1	--	1
Aroclor 1232	ND		ug/kg	35.1	--	1
Aroclor 1242	ND		ug/kg	35.1	--	1
Aroclor 1248	73.5		ug/kg	35.1	--	1
Aroclor 1262	ND		ug/kg	35.1	--	1
Aroclor 1268	ND		ug/kg	35.1	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	74		30-150
Decachlorobiphenyl	80		30-150
2,4,5,6-Tetrachloro-m-xylene	69		30-150
Decachlorobiphenyl	90		30-150

Project Name: FMR ENERGY INT. PARCEL**Lab Number:** L1203630**Project Number:** 06318-520**Report Date:** 03/08/12**SAMPLE RESULTS**

Lab ID: L1203630-07
Client ID: HA-203 S2
Sample Location: 495 TECH CTR.
Matrix: Soil
Analytical Method: 97,8082
Analytical Date: 03/05/12 13:32
Analyst: KB
Percent Solids: 90%

Date Collected: 03/02/12 09:50
Date Received: 03/02/12
Field Prep: Not Specified
Extraction Method: EPA 3540C
Extraction Date: 03/03/12 01:35
Cleanup Method1: EPA 3665A
Cleanup Date1: 03/05/12
Cleanup Method2: EPA 3660B
Cleanup Date2: 03/05/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Polychlorinated Biphenyls - Westborough Lab						
Aroclor 1254	102		ug/kg	35.1	--	1
Aroclor 1260	96.1		ug/kg	35.1	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	74		30-150
Decachlorobiphenyl	80		30-150
2,4,5,6-Tetrachloro-m-xylene	69		30-150
Decachlorobiphenyl	90		30-150

Project Name: FMR ENERGY INT. PARCEL**Lab Number:** L1203630**Project Number:** 06318-520**Report Date:** 03/08/12**SAMPLE RESULTS**

Lab ID: L1203630-08
Client ID: HA-203 S3
Sample Location: 495 TECH CTR.
Matrix: Soil
Analytical Method: 97,8082
Analytical Date: 03/05/12 13:44
Analyst: KB
Percent Solids: 87%

Date Collected: 03/02/12 09:55
Date Received: 03/02/12
Field Prep: Not Specified
Extraction Method: EPA 3540C
Extraction Date: 03/03/12 01:35
Cleanup Method1: EPA 3665A
Cleanup Date1: 03/05/12
Cleanup Method2: EPA 3660B
Cleanup Date2: 03/05/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Polychlorinated Biphenyls - Westborough Lab						
Aroclor 1016	ND		ug/kg	36.7	--	1
Aroclor 1221	ND		ug/kg	36.7	--	1
Aroclor 1232	ND		ug/kg	36.7	--	1
Aroclor 1242	ND		ug/kg	36.7	--	1
Aroclor 1248	ND		ug/kg	36.7	--	1
Aroclor 1254	ND		ug/kg	36.7	--	1
Aroclor 1260	ND		ug/kg	36.7	--	1
Aroclor 1262	ND		ug/kg	36.7	--	1
Aroclor 1268	ND		ug/kg	36.7	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	75		30-150
Decachlorobiphenyl	75		30-150
2,4,5,6-Tetrachloro-m-xylene	71		30-150
Decachlorobiphenyl	83		30-150

Project Name: FMR ENERGY INT. PARCEL**Lab Number:** L1203630**Project Number:** 06318-520**Report Date:** 03/08/12

Method Blank Analysis Batch Quality Control

Analytical Method: 97,8082
 Analytical Date: 03/05/12 16:12
 Analyst: KB

Extraction Method: EPA 3540C
 Extraction Date: 03/03/12 01:35
 Cleanup Method1: EPA 3665A
 Cleanup Date1: 03/05/12
 Cleanup Method2: EPA 3660B
 Cleanup Date2: 03/05/12

Parameter	Result	Qualifier	Units	RL	MDL
MCP Polychlorinated Biphenyls - Westborough Lab for sample(s): 01-03,06-08 Batch: WG521226-1					
Aroclor 1016	ND		ug/kg	31.5	--
Aroclor 1221	ND		ug/kg	31.5	--
Aroclor 1232	ND		ug/kg	31.5	--
Aroclor 1242	ND		ug/kg	31.5	--
Aroclor 1248	ND		ug/kg	31.5	--
Aroclor 1254	ND		ug/kg	31.5	--
Aroclor 1260	ND		ug/kg	31.5	--
Aroclor 1262	ND		ug/kg	31.5	--
Aroclor 1268	ND		ug/kg	31.5	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	66		30-150
Decachlorobiphenyl	74		30-150
2,4,5,6-Tetrachloro-m-xylene	68		30-150
Decachlorobiphenyl	82		30-150

Lab Control Sample Analysis**Batch Quality Control****Project Name:** FMR ENERGY INT. PARCEL**Lab Number:** L1203630**Project Number:** 06318-520**Report Date:** 03/08/12

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Polychlorinated Biphenyls - Westborough Lab Associated sample(s): 01-03,06-08 Batch: WG521226-2 WG521226-3								
Aroclor 1016	49		57		40-140	15		30
Aroclor 1260	50		55		40-140	10		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	69		77		30-150
Decachlorobiphenyl	70		71		30-150
2,4,5,6-Tetrachloro-m-xylene	70		73		30-150
Decachlorobiphenyl	79		78		30-150

INORGANICS & MISCELLANEOUS

Project Name: FMR ENERGY INT. PARCEL

Lab Number: L1203630

Project Number: 06318-520

Report Date: 03/08/12

SAMPLE RESULTS

Lab ID: L1203630-01

Date Collected: 03/02/12 08:45

Client ID: HA-202 S1

Date Received: 03/02/12

Sample Location: 495 TECH CTR.

Field Prep: Not Specified

Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	94		%	0.10	NA	1	-	03/06/12 13:30	30,2540G	SD



Project Name: FMR ENERGY INT. PARCEL**Project Number:** 06318-520**Lab Number:** L1203630**Report Date:** 03/08/12**SAMPLE RESULTS****Lab ID:** L1203630-02**Client ID:** HA-202 S2**Sample Location:** 495 TECH CTR.**Matrix:** Soil**Date Collected:** 03/02/12 09:00**Date Received:** 03/02/12**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	85		%	0.10	NA	1	-	03/06/12 13:30	30,2540G	SD



Project Name: FMR ENERGY INT. PARCEL

Lab Number: L1203630

Project Number: 06318-520

Report Date: 03/08/12

SAMPLE RESULTS

Lab ID: L1203630-03

Date Collected: 03/02/12 09:10

Client ID: HA-202 S3

Date Received: 03/02/12

Sample Location: 495 TECH CTR.

Field Prep: Not Specified

Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	78		%	0.10	NA	1	-	03/06/12 13:30	30,2540G	SD



Project Name: FMR ENERGY INT. PARCEL**Project Number:** 06318-520**Lab Number:** L1203630**Report Date:** 03/08/12**SAMPLE RESULTS****Lab ID:** L1203630-06**Client ID:** HA-203 S1**Sample Location:** 495 TECH CTR.**Matrix:** Soil**Date Collected:** 03/02/12 09:45**Date Received:** 03/02/12**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	84		%	0.10	NA	1	-	03/06/12 13:30	30,2540G	SD



Project Name: FMR ENERGY INT. PARCEL

Lab Number: L1203630

Project Number: 06318-520

Report Date: 03/08/12

SAMPLE RESULTS

Lab ID: L1203630-07

Date Collected: 03/02/12 09:50

Client ID: HA-203 S2

Date Received: 03/02/12

Sample Location: 495 TECH CTR.

Field Prep: Not Specified

Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	90		%	0.10	NA	1	-	03/06/12 13:30	30,2540G	SD



Project Name: FMR ENERGY INT. PARCEL**Project Number:** 06318-520**Lab Number:** L1203630**Report Date:** 03/08/12**SAMPLE RESULTS****Lab ID:** L1203630-08**Client ID:** HA-203 S3**Sample Location:** 495 TECH CTR.**Matrix:** Soil**Date Collected:** 03/02/12 09:55**Date Received:** 03/02/12**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	87		%	0.10	NA	1	-	03/06/12 13:30	30,2540G	SD



Lab Duplicate Analysis
Batch Quality Control**Project Name:** FMR ENERGY INT. PARCEL**Project Number:** 06318-520**Lab Number:** L1203630**Report Date:** 03/08/12

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-03,06-08 QC Batch ID: WG521647-1 QC Sample: L1203630-01 Client ID: HA-202 S1						
Solids, Total	94	94	%	0		20

Project Name: FMR ENERGY INT. PARCEL**Project Number:** 06318-520**Lab Number:** L1203630**Report Date:** 03/08/12**Sample Receipt and Container Information**

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA**Cooler Information Custody Seal****Cooler**

A Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1203630-01A	Amber 120ml unpreserved	A	N/A	2.8	Y	Absent	TS(7),MCP-8082-10-3540C(365)
L1203630-02A	Amber 120ml unpreserved	A	N/A	2.8	Y	Absent	TS(7),MCP-8082-10-3540C(365)
L1203630-03A	Amber 120ml unpreserved	A	N/A	2.8	Y	Absent	TS(7),MCP-8082-10-3540C(365)
L1203630-04A	Amber 120ml unpreserved	A	N/A	2.8	Y	Absent	HOLD(14)
L1203630-05A	Amber 120ml unpreserved	A	N/A	2.8	Y	Absent	HOLD(14)
L1203630-06A	Amber 120ml unpreserved	A	N/A	2.8	Y	Absent	TS(7),MCP-8082-10-3540C(365)
L1203630-07A	Amber 120ml unpreserved	A	N/A	2.8	Y	Absent	TS(7),MCP-8082-10-3540C(365)
L1203630-08A	Amber 120ml unpreserved	A	N/A	2.8	Y	Absent	TS(7),MCP-8082-10-3540C(365)
L1203630-09A	Amber 120ml unpreserved	A	N/A	2.8	Y	Absent	HOLD(14)
L1203630-10A	Amber 120ml unpreserved	A	N/A	2.8	Y	Absent	HOLD(14)

Container Comments

L1203630-04A

L1203630-05A

L1203630-09A

L1203630-10A

*Values in parentheses indicate holding time in days

Project Name: FMR ENERGY INT. PARCEL
Project Number: 06318-520

Lab Number: L1203630
Report Date: 03/08/12

GLOSSARY

Acronyms

EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NI	- Not Ignitable.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

Footnotes

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

A	- Spectra identified as "Aldol Condensation Product".
B	- The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than five times (5x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit.
C	- Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
D	- Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
E	- Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
G	- The concentration may be biased high due to matrix interferences (i.e., co-elution) with non-target compound(s). The result should be considered estimated.
H	- The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
I	- The RPD between the results for the two columns exceeds the method-specified criteria; however, the lower value has been reported due to obvious interference.
M	- Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
NJ	- Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

Report Format: Data Usability Report



Project Name: FMR ENERGY INT. PARCEL
Project Number: 06318-520

Lab Number: L1203630
Report Date: 03/08/12

Data Qualifiers

- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- J** - Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- ND** - Not detected at the reporting limit (RL) for the sample.

Report Format: Data Usability Report



Project Name: FMR ENERGY INT. PARCEL
Project Number: 06318-520

Lab Number: L1203630
Report Date: 03/08/12

REFERENCES

- 30 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.
- 97 EPA Test Methods (SW-846) with QC Requirements & Performance Standards for the Analysis of EPA SW-846 Methods under the Massachusetts Contingency Plan, WSC-CAM-IIA, IIB, IIIA, IIIB, IIIC, IIID, VA, VB, VC, VIA, VIB, VIIIA and VIIIB, July 2010.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Certificate/Approval Program Summary

Last revised January 30, 2012 - Westboro Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0574. **NELAP Accredited Solid Waste/Soil.**

Drinking Water (Inorganic Parameters: Color, pH, Turbidity, Conductivity, Alkalinity, Chloride, Free Residual Chlorine, Fluoride, Calcium Hardness, Sulfate, Nitrate, Nitrite, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Vanadium, Zinc, Total Dissolved Solids, Total Organic Carbon, Total Cyanide, Perchlorate. Organic Parameters: Volatile Organics 524.2, Total Trihalomethanes 524.2, 1,2-Dibromo-3-chloropropane (DBCP), Ethylene Dibromide (EDB), 1,4-Dioxane (Mod 8270). Microbiology Parameters: Total Coliform-MF mEndo (SM9222B), Total Coliform – Colilert (SM9223 P/A), E. Coli. – Colilert (SM9223 P/A), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D))

Wastewater/Non-Potable Water (Inorganic Parameters: Color, pH, Conductivity, Acidity, Alkalinity, Chloride, Total Residual Chlorine, Fluoride, Total Hardness, Silica, Sulfate, Sulfide, Ammonia, Kjeldahl Nitrogen, Nitrate, Nitrite, O-Phosphate, Total Phosphorus, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Dissolved Solids, Total Suspended Solids (non-filterable), BOD, CBOD, COD, TOC, Total Cyanide, Phenolics, Foaming Agents (MBAS), Bromide, Oil and Grease. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, 2,4-D, 2,4,5-T, 2,4,5-TP(Silvex), Acid Extractables (Phenols), Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, Polynuclear Aromatic Hydrocarbons, Haloethers, Chlorinated Hydrocarbons, Volatile Organics, TPH (HEM/SGT), Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH. Microbiology Parameters: Total Coliform – MF mEndo (SM9222B), Total Coliform – MTF (SM9221B), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform – A-1 Broth (SM9221E).)

Solid Waste/Soil (Inorganic Parameters: pH, Sulfide, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Tin, Vanadium, Zinc, Total Cyanide, Ignitability, Phenolics, Corrosivity, TCLP Leach (1311), SPLP Leach (1312 metals only), Reactivity. Organic Parameters: PCBs, PCBs in Oil, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH, Dicamba, 2,4-D, 2,4,5-T, 2,4,5-TP(Silvex), Volatile Organics, Acid Extractables (Phenols), 3,3'-Dichlorobenzidine, Phthalates, Nitrosamines, Nitroaromatics & Cyclic Ketones, PAHs, Haloethers, Chlorinated Hydrocarbons.)

Maine Department of Human Services Certificate/Lab ID: 2009024.

Drinking Water (Inorganic Parameters: SM9215B, 9222D, 9223B, EPA 180.1, 353.2, SM2130B, 2320B, 2540C, 4500Cl-D, 4500CN-C, 4500CN-E, 4500F-C, 4500H+B, 4500NO3-F, EPA 200.7, EPA 200.8, 245.1, EPA 300.0. Organic Parameters: 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 350.1, 351.1, 353.2, 410.4, 420.1, SM2320B, 2510B, 2540C, 2540D, 426C, 4500Cl-D, 4500Cl-E, 4500CN-C, 4500CN-E, 4500F-B, 4500F-C, 4500H+B, 4500Norg-B, 4500Norg-C, 4500NH3-B, 4500NH3-G, 4500NH3-H, 4500NO3-F, 4500P-B, 4500P-E, 5210B, 5220D, 5310C, 9010B, 9040B, 9030B, 7470A, 7196A, 2340B, EPA 200.7, 6010, 200.8, 6020, 245.1, 1311, 1312, 3005A, Enterolert, 9223D, 9222D. Organic Parameters: 608, 8081, 8082, 8330, 8151A, 624, 8260, 3510C, 3630C, 5030B, ME-DRO, ME-GRO, MA-EPH, MA-VPH.)

Solid Waste/Soil (Inorganic Parameters: 9010B, 9012A, 9014A, 9040B, 9045C, 6010B, 7471A, 7196A, 9050A, 1010, 1030, 9065, 1311, 1312, 3005A, 3050B. Organic Parameters: ME-DRO, ME-GRO, MA-EPH, MA-VPH, 8260B, 8270C, 8330, 8151A, 8081A, 8082, 3540C, 3546, 3580A, 3630C, 5030B, 5035.)

Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA086.

Drinking Water (Inorganic Parameters: (EPA 200.8 for: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl) (EPA 200.7 for: Ba,Be,Ca,Cd,Cr,Cu,Na,Ni) 245.1, (300.0 for: Nitrate-N, Fluoride, Sulfate); (EPA 353.2 for: Nitrate-N, Nitrite-N); (SM4500NO3-F for: Nitrate-N and Nitrite-N); 4500F-C, 4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, 2320B, SM2540C, SM4500H-B. Organic Parameters: (EPA 524.2 for: Trihalomethanes, Volatile Organics); (504.1 for: 1,2-Dibromoethane, 1,2-Dibromo-3-Chloropropane), EPA 332. Microbiology Parameters: SM9215B; ENZ. SUB. SM9223; ColilertQT SM9223B; MF-SM9222D.)

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for: *Non-Potable Water* (Inorganic Parameters:, (EPA 200.8 for: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn); (EPA 200.7 for: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn); 245.1, SM4500H,B, EPA 120.1,

SM2510B, 2540C, 2340B, 2320B, 4500CL-E, 4500F-BC, 426C, SM4500NH3-BH, (EPA 350.1 for: Ammonia-N), LACHAT 10-107-06-1-B for Ammonia-N, SM4500NO3-F, 353.2 for Nitrate-N, SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, 4500P-B,E, 5220D, EPA 410.4, SM 5210B, 5310C, 4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.

Organic Parameters: (EPA 624 for Volatile Halocarbons, Volatile Aromatics),(608 for: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs-Water), (EPA 625 for SVOC Acid Extractables and SVOC Base/Neutral Extractables), 600/4-81-045-PCB-Oil. Microbiology Parameters: (ColilertQT SM9223B;Enterolert-QT: SM9222D-MF.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 200307. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: SM 9222B, 9223B, 9215B, EPA 200.7, 200.8, 245.2, 300.0, SM4500CN-E, 4500H+B, 4500NO3-F, 2320B, 2510B, 2540C, 4500F-C, 5310C, 2120B, EPA 332.0. Organic Parameters: 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM9222D, 9221B, 9222B, 9221E-EC, EPA 3005A, 200.7, 200.8, 245.1, 245.2, SW-846 6010B, 6020, 7196A, 7470A, SM3500-CR-D, EPA 120.1, 300.0, 350.1, 350.2, 351.1, 353.2, 410.4, 420.1, 1664A, SW-846 9010, 9030, 9040B, SM426C, SM2120B, 2310B, 2320B, 2540B, 2540D, 4500H+B, 4500CL-E, 4500CN-E, 4500NH3-H, 4500NO3-F, 4500NO2-B, 4500P-E, 4500-S2-D, 5210B, 5220D, 2510B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D. Organic Parameters: SW-846 3510C, 3630C, 5030B, 8260B, 8270C, 8330, EPA 624, 625, 608, SW-846 8082, 8081A, 8151A.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 6010B, 7196A, 7471A, 1010, 1030, 9010, 9012A, 9014, 9030B, 9040B, 9045C, 9050C, 9065,1311, 1312, 3005A, 3050B. Organic Parameters: SW-846 3540C, 3546, 3550B, 3580A, 3630C, 5030B, 5035, 8260B, 8270C, 8330, 8151A, 8015B, 8082, 8081A.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA935. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: SM9222B, 9221E, 9223B, 9215B, 4500CN-CE, 4500NO3-F, 4500F-C, EPA 300.0, 200.7, 200.8, 245.2, 2540C, SM2120B, 2320B, 2510B, 5310C, SM4500H-B. Organic Parameters: EPA 332, 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM5210B, EPA 410.4, SM5220D, 4500CI-E, EPA 300.0, SM2120B, SM4500F-BC, EPA 200.7, 351.1, LACHAT 10-107-06-2-D, EPA 353.2, SM4500NO3-F, 4500NO2-B, EPA 1664A, SM5310B, C or D, 4500-PE, EPA 420.1, SM510ABC, SM4500P-B5+E, 2540B, 2540C, 2540D, EPA 120.1, SM2510B, SM15 426C, 9222D, 9221B, 9221C, 9221E, 9222B, 9215B, 2310B, 2320B, 4500NH3-H, 4500-S D, EPA 350.1, 350.2, SW-846 1312, 6020, 6020A, 7470A, 5540C, 4500H-B, EPA 200.8, SM3500Cr-D, 4500CN-CE, EPA 245.1, 245.2, SW-846 9040B, 3005A, 3015, EPA 6010B, 6010C, 7196A, 3060A, SW-846 9010B, 9030B. Organic Parameters: SW-846 8260B, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3510C, EPA 608, 624, 625, SW-846 3630C, 5030B, 8081A, 8081B, 8082, 8082A, 8151A, 8330, NJ OQA-QAM-025 Rev.7, NJ EPH.)

Solid & Chemical Materials (Inorganic Parameters: SW-846, 6010B, 6010C, 7196A, 3060A, 9010B, 9030B, 1010, 1030, 1311, 1312, 3005A, 3050B, 7471A, 7471B, 9014, 9012A, 9040B, 9045C, 9050A, 9065. Organic Parameters: SW-846 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 8260B, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3540C, 3545, 3546, 3550B, 3580A, 3630C, 5030B, 5035L, 5035H, NJ OQA-QAM-025 Rev.7, NJ EPH.)

New York Department of Health Certificate/Lab ID: 11148. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: SM9223B, 9222B, 9215B, EPA 200.8, 200.7, 245.2, SM5310C, EPA 332.0, SM2320B, EPA 300.0, SM2120B, 4500CN-E, 4500F-C, 4500H-B, 4500NO3-F, 2540C, SM 2510B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: SM9221E, 9222D, 9221B, 9222B, 9215B, 5210B, 5310C, EPA 410.4, SM5220D, 2310B-4a, 2320B, EPA 200.7, 300.0, SM4500CL-E, 4500F-C, SM15 426C, EPA 350.1, SM4500NH3-BH, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, LACHAT 10-107-04-1-C, SM4500-NO3-F, 4500-NO2-B, 4500P-E, 2540C, 2540B, 2540D, EPA 200.8, EPA 6010B, 6020, EPA 7196A, SM3500Cr-D, EPA 245.1, 245.2, 7470A, SM2120B, LACHAT 10-204-00-1-A, EPA 9040B, SM4500-HB, EPA 1664A, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, SM4500S-D, SM5540C, EPA 3005A, 9010B, 9030B.. Organic Parameters: EPA 624, 8260B, 8270C, 625, 608, 8081A, 8151A, 8330, 8082, EPA 3510C, 5030B.)

Solid & Hazardous Waste (Inorganic Parameters: 1010, 1030, EPA 6010B, 7196A, 7471A, 9012A, 9014, 9040B, 9045C, 9065, 9050, EPA 1311, 1312, 3005A, 3050B, 9010B, 9030B. Organic Parameters: EPA 8260B, 8270C, 8015B, 8081A, 8151A, 8330, 8082, 3540C, 3545, 3546, 3580, 5030B, 5035.)

North Carolina Department of the Environment and Natural Resources Certificate/Lab ID : 666. Organic Parameters: MA-EPH, MA-VPH.

Pennsylvania Department of Environmental Protection Certificate/Lab ID : 68-03671. **NELAP Accredited.**
Drinking Water (Organic Parameters: EPA 524.2, 504.1)

Non-Potable Water (Inorganic Parameters: EPA 1312, 200.7, 410.4, 1664A, SM2540D, 5210B, 5220D, 4500-P, BE.
Organic Parameters: EPA 3510C, 3005A, 3630C, 5030B, 625, 624, 608, 8081A, 8081B, 8082, 802A, 8151A, 8260B, 8270C, 8270D, 8330)

Solid & Hazardous Waste (Inorganic Parameters: EPA 350.1, 1010, 1030, 1311, 1312, 3050B, 3060A, 6010B, 6010C, 7196A, 7471A, 9010B, 9012A, 9014, 9040B, 9045C, 9050, 9065, SM 4500NH3-H. Organic Parameters: 3540C, 3546, 3580A, 3630C, 5035, 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8260B, 8270C, 8270D, 8330)

Rhode Island Department of Health Certificate/Lab ID: LAO00065. **NELAP Accredited via NY-DOH.**

Refer to MA-DEP Certificate for Potable and Non-Potable Water.

Refer to NJ-DEP Certificate for Potable and Non-Potable Water.

Texas Commission on Environmental Quality Certificate/Lab ID: T104704476-09-1. **NELAP Accredited.**

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664, 200.7, 200.8, 245.1, 245.2, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 6010, 6020, 7196, 7470, 9040, SM 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CL-E, 4500CN-E, 4500F-C, 4500H+B, 4500NH3-H, 4500NO2B, 4500P-E, 4500 S²⁻ D, 510C, 5210B, 5220D, 5310C, 5540C. Organic Parameters: EPA 608, 624, 625, 8081, 8082, 8151, 8260, 8270, 8330.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 1312, 9012, 9014, 9040, 9045, 9050, 9065.)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID: 460195. **NELAP Accredited.**

Non-Potable Water (Inorganic Parameters: EPA 3005A, 3015, 1312, 6010B, 6010C, SM4500S-D, SM4500-CN-CE, Lachat 10-204-00-1-X. Organic Parameters: EPA 8260B)

Solid & Hazardous Waste (Inorganic Parameters: EPA 3050B, 1311, 1312, 6010B, 6010C, 9030B, 9010B, 9012A, 9014. Organic Parameters: EPA 5035, 5030B, 8260B.)

Department of Defense, L-A-B Certificate/Lab ID: L2217.

Drinking Water (Inorganic Parameters: SM 4500H-B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: EPA 200.7, 200.8, 6010B, 6020, 245.1, 245.2, 7470A, 9040B, 300.0, 332.0, 6860, 353.2, 410.4, 9060, 1664A, SM 4500CN-E, 4500H-B, 4500NO3-F, 5220D, 5310C, 2320B, 2540C, 3005A, 3015, 9010B, 9056. Organic Parameters: EPA 8260B, 8270C, 8330A, 625, 8082, 8081A, 3510C, 5030B, MassDEP EPH, MassDEP VPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 200.7, 6010B, 7471A, 9010, 9012A, 6860, 1311, 1312, 3050B, 7196A, 9010B, 3500-CR-D, 4500CN-CE, 2540G, Organic Parameters: EPA 8260B, 8270C, 8330A/B-prep, 8082, 8081A, 3540C, 3546, 3580A, 5035A, MassDEP EPH, MassDEP VPH.)

The following analytes are not included in our current NELAP/TNI Scope of Accreditation:

EPA 8260B: Freon-113, 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene. **EPA 8330A**: PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT. **EPA 8270C**: Methyl naphthalene, Dimethyl naphthalene, Total Methylnaphthalenes, Total Dimethylnaphthalenes, 1,4-Diphenylhydrazine (Azobenzene). **EPA 625**: 4-Chloroaniline, 4-Methylphenol. Total Phosphorus in a soil matrix, Chloride in a soil matrix, TKN in a soil matrix, NO₂ in a soil matrix, NO₃ in a soil matrix, SO₄ in a soil matrix.

CHAIN OF CUSTODY RECORD

ALPHA Job # 41203630

H&A FILE NO. 06318-SZ0
PROJECT NAME EMC Energy Int. Fuel
H&A CONTACT C. Wirth

LABORATORY Camden
ADDRESS 495 Tech Ctr.
CONTACT

DELIVERY DATE 3/2/12
TURNAROUND TIME STD
PROJECT MANAGER C. Wirth

Phone (617) 886-7400
Fax (617) 886-7600
Page 1 of 1

Sample No.	Date	Time	Depth	Type	Analysis Requested												Number of Containers	Comments (special instructions, precautions, additional method numbers, etc.)	
					VOA	ABNs PAH only	MCP Metals	Pesticides PCBs	VPH Full Suite C-ranges only	EPH Full Suite C-ranges only	TPH (specify)	TCLP (specify)	Reactivity Ignitability Corrosivity						
H4A-202 S1	3/2/12	0845	0-0.5	Soil				X									1	Laboratory to use applicable DEP CAM methods, unless otherwise directed. ① PCB's by Solid-Schmitt 3540 C ② Hold Pending analysis 8 other Samples Contact Cole Wirth	
H4A-202 S2		0900	1-2														1		
H4A-202 S3		0910	2-3														1		
H4A-202 S4		0920	3-5														1		
H4A-202 S5		0930	5-7														1		
H4A-203 S1		0945	0-0.5														1		
H4A-203 S2		0950	1-2														1		
H4A-203 S3		0955	2-3														1		
H4A-203 S4		1010	3-5														1		
H4A-203 S5		1015	5-7														1		
Sampled and Relinquished by					Received by					LMOUID					Sampling Comments				

Sampled and Relinquished by	Received by	Analysis Requested	Analysis Results	Preservation Key	Evidence samples were tampered with?	YES	NO
Sign <u>Julius A. Doughty</u> Print <u>Julius A. Doughty</u> Firm <u>HA</u> Date <u>3/2/12</u> Time <u>15:15</u>	Sign <u>Julius A. Doughty</u> Print <u>Julius A. Doughty</u> Firm <u>HA</u> Date <u>3/2/12</u> Time <u>15:15</u>						
Relinquished by	Received by						
Sign <u>Michelle A. August</u> Print <u>Michelle A. August</u> Firm <u>HA</u> Date <u>3/2/12</u> Time <u>15:30</u>	Sign <u>Michelle A. August</u> Print <u>Michelle A. August</u> Firm <u>HA</u> Date <u>3/2/12</u> Time <u>15:30</u>						
Relinquished by	Received by						
Sign <u>Michelle A. August</u> Print <u>Michelle A. August</u> Firm <u>HA</u> Date <u>3/2/12</u> Time <u>18:05</u>	Sign <u>Michelle A. August</u> Print <u>Michelle A. August</u> Firm <u>HA</u> Date <u>3/2/12</u> Time <u>18:05</u>						

Sampled and Relinquished by	Received by	Analysis Requested	Analysis Results	Preservation Key	Evidence samples were tampered with?	YES	NO
Sign <u>Michelle A. August</u> Print <u>Michelle A. August</u> Firm <u>HA</u> Date <u>3/2/12</u> Time <u>18:05</u>	Sign <u>Michelle A. August</u> Print <u>Michelle A. August</u> Firm <u>HA</u> Date <u>3/2/12</u> Time <u>18:05</u>						
Relinquished by	Received by						
Sign <u>Michelle A. August</u> Print <u>Michelle A. August</u> Firm <u>HA</u> Date <u>3/2/12</u> Time <u>18:05</u>	Sign <u>Michelle A. August</u> Print <u>Michelle A. August</u> Firm <u>HA</u> Date <u>3/2/12</u> Time <u>18:05</u>						

If Presumptive Certainty Data Package is needed, initial all sections:
The required minimum field QC samples, as designated in BWSC CAM-VII have been or will be collected, as appropriate, to meet the requirements of Presumptive Certainty.
Matrix Spike (MS) samples for MCP Metals and/or Cyanide are included and identified herein.
This Chain of Custody Record (specify) includes does not include samples defined as Drinking Water Samples.
If this Chain of Custody Record identifies samples defined as Drinking Water Samples, Trip Blanks and Field Duplicates are included and identified and analysis of TTCs are required, as appropriate. Laboratory should (specify if applicable) analyze

Presumptive Certainty Data Package (Laboratory to use applicable DEP CAM methods)

Required Reporting Limits and Data Quality Objectives

Form 3003 WHITE - Laboratory CANARY - Project Manager PINK - Haley & Aldrich Laboratory AUGUST 2008



ANALYTICAL REPORT

Lab Number:	L1203632
Client:	Haley & Aldrich, Inc. 465 Medford Street, Suite 2200 Charlestown, MA 02129-1400
ATTN:	Cole Worthy
Phone:	(617) 886-7341
Project Name:	FMR. ENERGY INT. PARCEL
Project Number:	06318-520
Report Date:	03/08/12

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NY (11148), CT (PH-0574), NH (2003), NJ NELAP (MA935), RI (LAO00065), ME (MA00086), PA (68-03671), USDA (Permit #P-330-11-00240), NC (666), TX (T104704476), DOD (L2217), US Army Corps of Engineers.

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com



Project Name: FMR. ENERGY INT. PARCEL
Project Number: 06318-520

Lab Number: L1203632
Report Date: 03/08/12

Alpha Sample ID	Client ID	Sample Location	Collection Date/Time
L1203632-01	HA-204 S1	495 TECH CTR	03/02/12 10:25
L1203632-02	HA-204 S2	495 TECH CTR	03/02/12 10:30
L1203632-03	HA-204 S3	495 TECH CTR	03/02/12 10:35
L1203632-04	HA-204 S4	495 TECH CTR	03/02/12 10:40
L1203632-05	HA-204 S5	495 TECH CTR	03/02/12 10:45
L1203632-06	HA-205 S1	495 TECH CTR	03/02/12 10:55
L1203632-07	HA-205 S2	495 TECH CTR	03/02/12 11:05
L1203632-08	HA-205 S3	495 TECH CTR	03/02/12 11:10
L1203632-09	HA-205 S4	495 TECH CTR	03/02/12 11:15
L1203632-10	HA-205 S5	495 TECH CTR	03/02/12 11:20

Project Name: FMR. ENERGY INT. PARCEL

Lab Number: L1203632

Project Number: 06318-520

Report Date: 03/08/12

MADEP MCP Response Action Analytical Report Certification

This form provides certifications for all samples performed by MCP methods. Please refer to the Sample Results and Container Information sections of this report for specification of MCP methods used for each analysis. The following questions pertain only to MCP Analytical Methods.

An affirmative response to questions A through F is required for "Presumptive Certainty" status		
A	Were all samples received in a condition consistent with those described on the Chain-of-Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding times?	YES
B	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?	YES
C	Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?	YES
D	Does the laboratory report comply with all the reporting requirements specified in CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data?"	YES
E a.	VPH, EPH, and APH Methods only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications).	N/A
E b.	APH and TO-15 Methods only: Was the complete analyte list reported for each method?	N/A
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all "No" responses to Questions A through E)?	YES
A response to questions G, H and I is required for "Presumptive Certainty" status		
G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	NO
H	Were all QC performance standards specified in the CAM protocol(s) achieved?	NO
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	YES
For any questions answered "No", please refer to the case narrative section on the following page(s).		

Please note that sample matrix information is located in the Sample Results section of this report.



Project Name: FMR. ENERGY INT. PARCEL
Project Number: 06318-520

Lab Number: L1203632
Report Date: 03/08/12

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Performance criteria for CAM and RCP methods allow for some LCS compound failures to occur and still be within method compliance. In these instances, the specific failures are not narrated but are noted in the associated QC table. This information is also incorporated in the Data Usability format for our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

Please see the associated ADEX data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

Please contact Client Services at 800-624-9220 with any questions.

MCP Related Narratives

PCB

L1203632-02 has elevated detection limits due to the dilution required by matrix interferences encountered during the concentration of the sample.

L1203632-06 has elevated detection limits due to the dilution required by the elevated concentrations of target compounds in the sample.

In reference to question G:

L1203632-06: One or more of the target analytes did not achieve the requested CAM reporting limits.

Project Name: FMR. ENERGY INT. PARCEL
Project Number: 06318-520

Lab Number: L1203632
Report Date: 03/08/12

Case Narrative (continued)

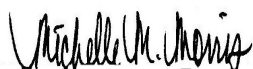
In reference to question H:

The surrogate recovery for L1203632-02 is outside the individual acceptance criteria for Decachlorobiphenyl (193%), but within the overall method allowances. The results of the original analysis are reported; however, all associated compounds are considered to have a potential bias.

The surrogate recoveries for L1203632-06 are below the acceptance criteria for 2,4,5,6-Tetrachloro-m-xylene and Decachlorobiphenyl (all 0%) due to the dilution required to quantitate the sample. Re-extraction was not required; therefore, the results of the original analysis are reported.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:



Michelle M. Morris

Title: Technical Director/Representative

Date: 03/08/12

ORGANICS

PCBS

Project Name: FMR. ENERGY INT. PARCEL**Lab Number:** L1203632**Project Number:** 06318-520**Report Date:** 03/08/12**SAMPLE RESULTS**

Lab ID: L1203632-01
Client ID: HA-204 S1
Sample Location: 495 TECH CTR
Matrix: Soil
Analytical Method: 97,8082
Analytical Date: 03/05/12 13:56
Analyst: KB
Percent Solids: 90%

Date Collected: 03/02/12 10:25
Date Received: 03/02/12
Field Prep: Not Specified
Extraction Method: EPA 3540C
Extraction Date: 03/03/12 01:35
Cleanup Method1: EPA 3665A
Cleanup Date1: 03/05/12
Cleanup Method2: EPA 3660B
Cleanup Date2: 03/05/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Polychlorinated Biphenyls - Westborough Lab						
Aroclor 1016	ND		ug/kg	36.9	--	1
Aroclor 1221	ND		ug/kg	36.9	--	1
Aroclor 1232	ND		ug/kg	36.9	--	1
Aroclor 1242	ND		ug/kg	36.9	--	1
Aroclor 1248	ND		ug/kg	36.9	--	1
Aroclor 1262	ND		ug/kg	36.9	--	1
Aroclor 1268	ND		ug/kg	36.9	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	59		30-150
Decachlorobiphenyl	66		30-150
2,4,5,6-Tetrachloro-m-xylene	55		30-150
Decachlorobiphenyl	75		30-150

Project Name: FMR. ENERGY INT. PARCEL**Lab Number:** L1203632**Project Number:** 06318-520**Report Date:** 03/08/12**SAMPLE RESULTS**

Lab ID: L1203632-01
Client ID: HA-204 S1
Sample Location: 495 TECH CTR
Matrix: Soil
Analytical Method: 97,8082
Analytical Date: 03/05/12 13:56
Analyst: KB
Percent Solids: 90%

Date Collected: 03/02/12 10:25
Date Received: 03/02/12
Field Prep: Not Specified
Extraction Method: EPA 3540C
Extraction Date: 03/03/12 01:35
Cleanup Method1: EPA 3665A
Cleanup Date1: 03/05/12
Cleanup Method2: EPA 3660B
Cleanup Date2: 03/05/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Polychlorinated Biphenyls - Westborough Lab						
Aroclor 1254	67.0		ug/kg	36.9	--	1
Aroclor 1260	117		ug/kg	36.9	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	59		30-150
Decachlorobiphenyl	66		30-150
2,4,5,6-Tetrachloro-m-xylene	55		30-150
Decachlorobiphenyl	75		30-150

Project Name: FMR. ENERGY INT. PARCEL**Lab Number:** L1203632**Project Number:** 06318-520**Report Date:** 03/08/12**SAMPLE RESULTS**

Lab ID: L1203632-02
Client ID: HA-204 S2
Sample Location: 495 TECH CTR
Matrix: Soil
Analytical Method: 97,8082
Analytical Date: 03/08/12 12:21
Analyst: KB
Percent Solids: 87%

Date Collected: 03/02/12 10:30
Date Received: 03/02/12
Field Prep: Not Specified
Extraction Method: EPA 3540C
Extraction Date: 03/07/12 15:50
Cleanup Method1: EPA 3665A
Cleanup Date1: 03/08/12
Cleanup Method2: EPA 3660B
Cleanup Date2: 03/08/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Polychlorinated Biphenyls - Westborough Lab						
Aroclor 1016	ND		ug/kg	75.1	--	2
Aroclor 1221	ND		ug/kg	75.1	--	2
Aroclor 1232	ND		ug/kg	75.1	--	2
Aroclor 1242	ND		ug/kg	75.1	--	2
Aroclor 1248	ND		ug/kg	75.1	--	2
Aroclor 1254	ND		ug/kg	75.1	--	2
Aroclor 1260	ND		ug/kg	75.1	--	2
Aroclor 1262	ND		ug/kg	75.1	--	2
Aroclor 1268	ND		ug/kg	75.1	--	2

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	80		30-150
Decachlorobiphenyl	82		30-150
2,4,5,6-Tetrachloro-m-xylene	77		30-150
Decachlorobiphenyl	193	Q	30-150

Project Name: FMR. ENERGY INT. PARCEL**Lab Number:** L1203632**Project Number:** 06318-520**Report Date:** 03/08/12**SAMPLE RESULTS**

Lab ID: L1203632-03
Client ID: HA-204 S3
Sample Location: 495 TECH CTR
Matrix: Soil
Analytical Method: 97,8082
Analytical Date: 03/05/12 14:21
Analyst: KB
Percent Solids: 78%

Date Collected: 03/02/12 10:35
Date Received: 03/02/12
Field Prep: Not Specified
Extraction Method: EPA 3540C
Extraction Date: 03/03/12 01:35
Cleanup Method1: EPA 3665A
Cleanup Date1: 03/05/12
Cleanup Method2: EPA 3660B
Cleanup Date2: 03/05/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Polychlorinated Biphenyls - Westborough Lab						
Aroclor 1016	ND		ug/kg	42.0	--	1
Aroclor 1221	ND		ug/kg	42.0	--	1
Aroclor 1232	ND		ug/kg	42.0	--	1
Aroclor 1242	ND		ug/kg	42.0	--	1
Aroclor 1248	ND		ug/kg	42.0	--	1
Aroclor 1254	ND		ug/kg	42.0	--	1
Aroclor 1260	ND		ug/kg	42.0	--	1
Aroclor 1262	ND		ug/kg	42.0	--	1
Aroclor 1268	ND		ug/kg	42.0	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	61		30-150
Decachlorobiphenyl	64		30-150
2,4,5,6-Tetrachloro-m-xylene	59		30-150
Decachlorobiphenyl	77		30-150

Project Name: FMR. ENERGY INT. PARCEL**Lab Number:** L1203632**Project Number:** 06318-520**Report Date:** 03/08/12**SAMPLE RESULTS**

Lab ID: L1203632-06 **D**
Client ID: HA-205 S1
Sample Location: 495 TECH CTR
Matrix: Soil
Analytical Method: 97,8082
Analytical Date: 03/07/12 20:19
Analyst: KB
Percent Solids: 92%

Date Collected: 03/02/12 10:55
Date Received: 03/02/12
Field Prep: Not Specified
Extraction Method: EPA 3540C
Extraction Date: 03/03/12 01:35
Cleanup Method1: EPA 3665A
Cleanup Date1: 03/05/12
Cleanup Method2: EPA 3660B
Cleanup Date2: 03/05/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Polychlorinated Biphenyls - Westborough Lab						
Aroclor 1016	ND		ug/kg	692	--	20
Aroclor 1221	ND		ug/kg	692	--	20
Aroclor 1232	ND		ug/kg	692	--	20
Aroclor 1242	ND		ug/kg	692	--	20
Aroclor 1254	9840		ug/kg	692	--	20
Aroclor 1262	ND		ug/kg	692	--	20
Aroclor 1268	ND		ug/kg	692	--	20

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	0	Q	30-150
Decachlorobiphenyl	0	Q	30-150
2,4,5,6-Tetrachloro-m-xylene	0	Q	30-150
Decachlorobiphenyl	0	Q	30-150

Project Name: FMR. ENERGY INT. PARCEL**Lab Number:** L1203632**Project Number:** 06318-520**Report Date:** 03/08/12**SAMPLE RESULTS**

Lab ID: L1203632-06 D
Client ID: HA-205 S1
Sample Location: 495 TECH CTR
Matrix: Soil
Analytical Method: 97,8082
Analytical Date: 03/07/12 20:19
Analyst: KB
Percent Solids: 92%

Date Collected: 03/02/12 10:55
Date Received: 03/02/12
Field Prep: Not Specified
Extraction Method: EPA 3540C
Extraction Date: 03/03/12 01:35
Cleanup Method1: EPA 3665A
Cleanup Date1: 03/05/12
Cleanup Method2: EPA 3660B
Cleanup Date2: 03/05/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Polychlorinated Biphenyls - Westborough Lab						
Aroclor 1248	4600		ug/kg	692	--	20
Aroclor 1260	2110		ug/kg	692	--	20

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	0	Q	30-150
Decachlorobiphenyl	0	Q	30-150
2,4,5,6-Tetrachloro-m-xylene	0	Q	30-150
Decachlorobiphenyl	0	Q	30-150

Project Name: FMR. ENERGY INT. PARCEL**Lab Number:** L1203632**Project Number:** 06318-520**Report Date:** 03/08/12**SAMPLE RESULTS**

Lab ID: L1203632-07
Client ID: HA-205 S2
Sample Location: 495 TECH CTR
Matrix: Soil
Analytical Method: 97,8082
Analytical Date: 03/05/12 14:45
Analyst: KB
Percent Solids: 90%

Date Collected: 03/02/12 11:05
Date Received: 03/02/12
Field Prep: Not Specified
Extraction Method: EPA 3540C
Extraction Date: 03/03/12 01:35
Cleanup Method1: EPA 3665A
Cleanup Date1: 03/05/12
Cleanup Method2: EPA 3660B
Cleanup Date2: 03/05/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Polychlorinated Biphenyls - Westborough Lab						
Aroclor 1016	ND		ug/kg	36.0	--	1
Aroclor 1221	ND		ug/kg	36.0	--	1
Aroclor 1232	ND		ug/kg	36.0	--	1
Aroclor 1242	ND		ug/kg	36.0	--	1
Aroclor 1248	ND		ug/kg	36.0	--	1
Aroclor 1254	80.0		ug/kg	36.0	--	1
Aroclor 1260	ND		ug/kg	36.0	--	1
Aroclor 1262	ND		ug/kg	36.0	--	1
Aroclor 1268	ND		ug/kg	36.0	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	69		30-150
Decachlorobiphenyl	74		30-150
2,4,5,6-Tetrachloro-m-xylene	69		30-150
Decachlorobiphenyl	92		30-150

Project Name: FMR. ENERGY INT. PARCEL**Lab Number:** L1203632**Project Number:** 06318-520**Report Date:** 03/08/12**SAMPLE RESULTS**

Lab ID: L1203632-08
Client ID: HA-205 S3
Sample Location: 495 TECH CTR
Matrix: Soil
Analytical Method: 97,8082
Analytical Date: 03/05/12 14:58
Analyst: KB
Percent Solids: 87%

Date Collected: 03/02/12 11:10
Date Received: 03/02/12
Field Prep: Not Specified
Extraction Method: EPA 3540C
Extraction Date: 03/03/12 01:35
Cleanup Method1: EPA 3665A
Cleanup Date1: 03/05/12
Cleanup Method2: EPA 3660B
Cleanup Date2: 03/05/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Polychlorinated Biphenyls - Westborough Lab						
Aroclor 1016	ND		ug/kg	37.8	--	1
Aroclor 1221	ND		ug/kg	37.8	--	1
Aroclor 1232	ND		ug/kg	37.8	--	1
Aroclor 1242	ND		ug/kg	37.8	--	1
Aroclor 1248	ND		ug/kg	37.8	--	1
Aroclor 1254	ND		ug/kg	37.8	--	1
Aroclor 1260	ND		ug/kg	37.8	--	1
Aroclor 1262	ND		ug/kg	37.8	--	1
Aroclor 1268	ND		ug/kg	37.8	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	34		30-150
Decachlorobiphenyl	35		30-150
2,4,5,6-Tetrachloro-m-xylene	34		30-150
Decachlorobiphenyl	39		30-150

Project Name: FMR. ENERGY INT. PARCEL**Lab Number:** L1203632**Project Number:** 06318-520**Report Date:** 03/08/12

Method Blank Analysis Batch Quality Control

Analytical Method: 97,8082
 Analytical Date: 03/05/12 16:12
 Analyst: KB

Extraction Method: EPA 3540C
 Extraction Date: 03/03/12 01:35
 Cleanup Method1: EPA 3665A
 Cleanup Date1: 03/05/12
 Cleanup Method2: EPA 3660B
 Cleanup Date2: 03/05/12

Parameter	Result	Qualifier	Units	RL	MDL
MCP Polychlorinated Biphenyls - Westborough Lab for sample(s): 01,03,06-08 Batch: WG521226-1					
Aroclor 1016	ND		ug/kg	31.5	--
Aroclor 1221	ND		ug/kg	31.5	--
Aroclor 1232	ND		ug/kg	31.5	--
Aroclor 1242	ND		ug/kg	31.5	--
Aroclor 1248	ND		ug/kg	31.5	--
Aroclor 1254	ND		ug/kg	31.5	--
Aroclor 1260	ND		ug/kg	31.5	--
Aroclor 1262	ND		ug/kg	31.5	--
Aroclor 1268	ND		ug/kg	31.5	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	66		30-150
Decachlorobiphenyl	74		30-150
2,4,5,6-Tetrachloro-m-xylene	68		30-150
Decachlorobiphenyl	82		30-150

Project Name: FMR. ENERGY INT. PARCEL**Lab Number:** L1203632**Project Number:** 06318-520**Report Date:** 03/08/12

Method Blank Analysis Batch Quality Control

Analytical Method: 97,8082
 Analytical Date: 03/08/12 12:34
 Analyst: KB

Extraction Method: EPA 3540C
 Extraction Date: 03/07/12 15:50
 Cleanup Method1: EPA 3665A
 Cleanup Date1: 03/08/12
 Cleanup Method2: EPA 3660B
 Cleanup Date2: 03/08/12

Parameter	Result	Qualifier	Units	RL	MDL
MCP Polychlorinated Biphenyls - Westborough Lab for sample(s): 02 Batch: WG521901-1					
Aroclor 1016	ND		ug/kg	32.6	--
Aroclor 1221	ND		ug/kg	32.6	--
Aroclor 1232	ND		ug/kg	32.6	--
Aroclor 1242	ND		ug/kg	32.6	--
Aroclor 1248	ND		ug/kg	32.6	--
Aroclor 1254	ND		ug/kg	32.6	--
Aroclor 1260	ND		ug/kg	32.6	--
Aroclor 1262	ND		ug/kg	32.6	--
Aroclor 1268	ND		ug/kg	32.6	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	81		30-150
Decachlorobiphenyl	89		30-150
2,4,5,6-Tetrachloro-m-xylene	77		30-150
Decachlorobiphenyl	108		30-150

Lab Control Sample Analysis

Batch Quality Control

Project Name: FMR. ENERGY INT. PARCEL

Lab Number: L1203632

Project Number: 06318-520

Report Date: 03/08/12

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Polychlorinated Biphenyls - Westborough Lab Associated sample(s): 01,03,06-08 Batch: WG521226-2 WG521226-3								
Aroclor 1016	49		57		40-140	15		30
Aroclor 1260	50		55		40-140	10		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	69		77		30-150
Decachlorobiphenyl	70		71		30-150
2,4,5,6-Tetrachloro-m-xylene	70		73		30-150
Decachlorobiphenyl	79		78		30-150

MCP Polychlorinated Biphenyls - Westborough Lab Associated sample(s): 02 Batch: WG521901-2 WG521901-3								
Aroclor 1016	82		84		40-140	2		30
Aroclor 1260	89		94		40-140	5		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	80		76		30-150
Decachlorobiphenyl	87		85		30-150
2,4,5,6-Tetrachloro-m-xylene	75		71		30-150
Decachlorobiphenyl	93		87		30-150

INORGANICS & MISCELLANEOUS

Project Name: FMR. ENERGY INT. PARCEL**Project Number:** 06318-520**Lab Number:** L1203632**Report Date:** 03/08/12**SAMPLE RESULTS****Lab ID:** L1203632-01**Client ID:** HA-204 S1**Sample Location:** 495 TECH CTR**Matrix:** Soil**Date Collected:** 03/02/12 10:25**Date Received:** 03/02/12**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	90		%	0.10	NA	1	-	03/06/12 13:30	30,2540G	SD



Project Name: FMR. ENERGY INT. PARCEL**Project Number:** 06318-520**Lab Number:** L1203632**Report Date:** 03/08/12**SAMPLE RESULTS****Lab ID:** L1203632-02**Client ID:** HA-204 S2**Sample Location:** 495 TECH CTR**Matrix:** Soil**Date Collected:** 03/02/12 10:30**Date Received:** 03/02/12**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	87		%	0.10	NA	1	-	03/06/12 13:30	30,2540G	SD



Project Name: FMR. ENERGY INT. PARCEL**Project Number:** 06318-520**Lab Number:** L1203632**Report Date:** 03/08/12**SAMPLE RESULTS****Lab ID:** L1203632-03**Client ID:** HA-204 S3**Sample Location:** 495 TECH CTR**Matrix:** Soil**Date Collected:** 03/02/12 10:35**Date Received:** 03/02/12**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	78		%	0.10	NA	1	-	03/06/12 13:30	30,2540G	SD



Project Name: FMR. ENERGY INT. PARCEL**Project Number:** 06318-520**Lab Number:** L1203632**Report Date:** 03/08/12**SAMPLE RESULTS****Lab ID:** L1203632-06**Client ID:** HA-205 S1**Sample Location:** 495 TECH CTR**Matrix:** Soil**Date Collected:** 03/02/12 10:55**Date Received:** 03/02/12**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	92		%	0.10	NA	1	-	03/06/12 13:30	30,2540G	SD



Project Name: FMR. ENERGY INT. PARCEL**Project Number:** 06318-520**Lab Number:** L1203632**Report Date:** 03/08/12**SAMPLE RESULTS****Lab ID:** L1203632-07**Client ID:** HA-205 S2**Sample Location:** 495 TECH CTR**Matrix:** Soil**Date Collected:** 03/02/12 11:05**Date Received:** 03/02/12**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	90		%	0.10	NA	1	-	03/06/12 13:30	30,2540G	SD



Project Name: FMR. ENERGY INT. PARCEL**Project Number:** 06318-520**Lab Number:** L1203632**Report Date:** 03/08/12**SAMPLE RESULTS****Lab ID:** L1203632-08**Client ID:** HA-205 S3**Sample Location:** 495 TECH CTR**Matrix:** Soil**Date Collected:** 03/02/12 11:10**Date Received:** 03/02/12**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	87		%	0.10	NA	1	-	03/06/12 13:30	30,2540G	SD



Lab Duplicate Analysis
Batch Quality Control**Project Name:** FMR. ENERGY INT. PARCEL**Project Number:** 06318-520**Lab Number:** L1203632**Report Date:** 03/08/12

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-03,06-08 QC Batch ID: WG521647-1 QC Sample: L1203630-01 Client ID: DUP Sample						
Solids, Total	94	94	%	0		20

Project Name: FMR. ENERGY INT. PARCEL**Project Number:** 06318-520**Lab Number:** L1203632**Report Date:** 03/08/12**Sample Receipt and Container Information**

Were project specific reporting limits specified?

YES

Reagent H2O Preserved Vials Frozen on: NA**Cooler Information Custody Seal****Cooler**

A Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1203632-01A	Amber 120ml unpreserved	A	N/A	2.8	Y	Absent	TS(7),MCP-8082-10-3540C(365)
L1203632-02A	Amber 120ml unpreserved	A	N/A	2.8	Y	Absent	TS(7),MCP-8082-10-3540C(365)
L1203632-03A	Amber 120ml unpreserved	A	N/A	2.8	Y	Absent	TS(7),MCP-8082-10-3540C(365)
L1203632-04A	Amber 120ml unpreserved	A	N/A	2.8	Y	Absent	HOLD(14)
L1203632-05A	Amber 120ml unpreserved	A	N/A	2.8	Y	Absent	HOLD(14)
L1203632-06A	Amber 120ml unpreserved	A	N/A	2.8	Y	Absent	TS(7),MCP-8082-10-3540C(365)
L1203632-07A	Amber 120ml unpreserved	A	N/A	2.8	Y	Absent	TS(7),MCP-8082-10-3540C(365)
L1203632-08A	Amber 120ml unpreserved	A	N/A	2.8	Y	Absent	TS(7),MCP-8082-10-3540C(365)
L1203632-09A	Amber 120ml unpreserved	A	N/A	2.8	Y	Absent	HOLD(14)
L1203632-10A	Amber 120ml unpreserved	A	N/A	2.8	Y	Absent	HOLD(14)

*Values in parentheses indicate holding time in days

Project Name: FMR. ENERGY INT. PARCEL
Project Number: 06318-520

Lab Number: L1203632
Report Date: 03/08/12

GLOSSARY

Acronyms

EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NI	- Not Ignitable.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

Footnotes

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

A	- Spectra identified as "Aldol Condensation Product".
B	- The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than five times (5x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit.
C	- Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
D	- Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
E	- Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
G	- The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
H	- The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
I	- The RPD between the results for the two columns exceeds the method-specified criteria; however, the lower value has been reported due to obvious interference.
M	- Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
NJ	- Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

Report Format: Data Usability Report



Project Name: FMR. ENERGY INT. PARCEL
Project Number: 06318-520

Lab Number: L1203632
Report Date: 03/08/12

Data Qualifiers

- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- J** - Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- ND** - Not detected at the reporting limit (RL) for the sample.

Project Name: FMR. ENERGY INT. PARCEL
Project Number: 06318-520

Lab Number: L1203632
Report Date: 03/08/12

REFERENCES

- 30 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.
- 97 EPA Test Methods (SW-846) with QC Requirements & Performance Standards for the Analysis of EPA SW-846 Methods under the Massachusetts Contingency Plan, WSC-CAM-IIA, IIB, IIIA, IIIB, IIIC, IIID, VA, VB, VC, VIA, VIB, VIIIA and VIIIB, July 2010.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Certificate/Approval Program Summary

Last revised January 30, 2012 - Westboro Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0574. **NELAP Accredited Solid Waste/Soil.**

Drinking Water (Inorganic Parameters: Color, pH, Turbidity, Conductivity, Alkalinity, Chloride, Free Residual Chlorine, Fluoride, Calcium Hardness, Sulfate, Nitrate, Nitrite, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Vanadium, Zinc, Total Dissolved Solids, Total Organic Carbon, Total Cyanide, Perchlorate. Organic Parameters: Volatile Organics 524.2, Total Trihalomethanes 524.2, 1,2-Dibromo-3-chloropropane (DBCP), Ethylene Dibromide (EDB), 1,4-Dioxane (Mod 8270). Microbiology Parameters: Total Coliform-MF mEndo (SM9222B), Total Coliform – Colilert (SM9223 P/A), E. Coli. – Colilert (SM9223 P/A), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D))

Wastewater/Non-Potable Water (Inorganic Parameters: Color, pH, Conductivity, Acidity, Alkalinity, Chloride, Total Residual Chlorine, Fluoride, Total Hardness, Silica, Sulfate, Sulfide, Ammonia, Kjeldahl Nitrogen, Nitrate, Nitrite, O-Phosphate, Total Phosphorus, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Dissolved Solids, Total Suspended Solids (non-filterable), BOD, CBOD, COD, TOC, Total Cyanide, Phenolics, Foaming Agents (MBAS), Bromide, Oil and Grease. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, 2,4-D, 2,4,5-T, 2,4,5-TP(Silvex), Acid Extractables (Phenols), Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, Polynuclear Aromatic Hydrocarbons, Haloethers, Chlorinated Hydrocarbons, Volatile Organics, TPH (HEM/SGT), Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH. Microbiology Parameters: Total Coliform – MF mEndo (SM9222B), Total Coliform – MTF (SM9221B), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform – A-1 Broth (SM9221E).)

Solid Waste/Soil (Inorganic Parameters: pH, Sulfide, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Tin, Vanadium, Zinc, Total Cyanide, Ignitability, Phenolics, Corrosivity, TCLP Leach (1311), SPLP Leach (1312 metals only), Reactivity. Organic Parameters: PCBs, PCBs in Oil, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH, Dicamba, 2,4-D, 2,4,5-T, 2,4,5-TP(Silvex), Volatile Organics, Acid Extractables (Phenols), 3,3'-Dichlorobenzidine, Phthalates, Nitrosamines, Nitroaromatics & Cyclic Ketones, PAHs, Haloethers, Chlorinated Hydrocarbons.)

Maine Department of Human Services Certificate/Lab ID: 2009024.

Drinking Water (Inorganic Parameters: SM9215B, 9222D, 9223B, EPA 180.1, 353.2, SM2130B, 2320B, 2540C, 4500Cl-D, 4500CN-C, 4500CN-E, 4500F-C, 4500H+B, 4500NO3-F, EPA 200.7, EPA 200.8, 245.1, EPA 300.0. Organic Parameters: 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 350.1, 351.1, 353.2, 410.4, 420.1, SM2320B, 2510B, 2540C, 2540D, 426C, 4500Cl-D, 4500Cl-E, 4500CN-C, 4500CN-E, 4500F-B, 4500F-C, 4500H+B, 4500Norg-B, 4500Norg-C, 4500NH3-B, 4500NH3-G, 4500NH3-H, 4500NO3-F, 4500P-B, 4500P-E, 5210B, 5220D, 5310C, 9010B, 9040B, 9030B, 7470A, 7196A, 2340B, EPA 200.7, 6010, 200.8, 6020, 245.1, 1311, 1312, 3005A, Enterolert, 9223D, 9222D. Organic Parameters: 608, 8081, 8082, 8330, 8151A, 624, 8260, 3510C, 3630C, 5030B, ME-DRO, ME-GRO, MA-EPH, MA-VPH.)

Solid Waste/Soil (Inorganic Parameters: 9010B, 9012A, 9014A, 9040B, 9045C, 6010B, 7471A, 7196A, 9050A, 1010, 1030, 9065, 1311, 1312, 3005A, 3050B. Organic Parameters: ME-DRO, ME-GRO, MA-EPH, MA-VPH, 8260B, 8270C, 8330, 8151A, 8081A, 8082, 3540C, 3546, 3580A, 3630C, 5030B, 5035.)

Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA086.

Drinking Water (Inorganic Parameters: (EPA 200.8 for: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl) (EPA 200.7 for: Ba,Be,Ca,Cd,Cr,Cu,Na,Ni) 245.1, (300.0 for: Nitrate-N, Fluoride, Sulfate); (EPA 353.2 for: Nitrate-N, Nitrite-N); (SM4500NO3-F for: Nitrate-N and Nitrite-N); 4500F-C, 4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, 2320B, SM2540C, SM4500H-B. Organic Parameters: (EPA 524.2 for: Trihalomethanes, Volatile Organics); (504.1 for: 1,2-Dibromoethane, 1,2-Dibromo-3-Chloropropane), EPA 332. Microbiology Parameters: SM9215B; ENZ. SUB. SM9223; ColilertQT SM9223B; MF-SM9222D.)

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Non-Potable Water (Inorganic Parameters:, (EPA 200.8 for: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn); (EPA 200.7 for: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn); 245.1, SM4500H,B, EPA 120.1,

SM2510B, 2540C, 2340B, 2320B, 4500CL-E, 4500F-BC, 426C, SM4500NH3-BH, (EPA 350.1 for: Ammonia-N), LACHAT 10-107-06-1-B for Ammonia-N, SM4500NO3-F, 353.2 for Nitrate-N, SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, 4500P-B,E, 5220D, EPA 410.4, SM 5210B, 5310C, 4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.

Organic Parameters: (EPA 624 for Volatile Halocarbons, Volatile Aromatics),(608 for: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs-Water), (EPA 625 for SVOC Acid Extractables and SVOC Base/Neutral Extractables), 600/4-81-045-PCB-Oil. Microbiology Parameters: (ColilertQT SM9223B;Enterolert-QT: SM9222D-MF.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 200307. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: SM 9222B, 9223B, 9215B, EPA 200.7, 200.8, 245.2, 300.0, SM4500CN-E, 4500H+B, 4500NO3-F, 2320B, 2510B, 2540C, 4500F-C, 5310C, 2120B, EPA 332.0. Organic Parameters: 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM9222D, 9221B, 9222B, 9221E-EC, EPA 3005A, 200.7, 200.8, 245.1, 245.2, SW-846 6010B, 6020, 7196A, 7470A, SM3500-CR-D, EPA 120.1, 300.0, 350.1, 350.2, 351.1, 353.2, 410.4, 420.1, 1664A, SW-846 9010, 9030, 9040B, SM426C, SM2120B, 2310B, 2320B, 2540B, 2540D, 4500H+B, 4500CL-E, 4500CN-E, 4500NH3-H, 4500NO3-F, 4500NO2-B, 4500P-E, 4500-S2-D, 5210B, 5220D, 2510B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D. Organic Parameters: SW-846 3510C, 3630C, 5030B, 8260B, 8270C, 8330, EPA 624, 625, 608, SW-846 8082, 8081A, 8151A.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 6010B, 7196A, 7471A, 1010, 1030, 9010, 9012A, 9014, 9030B, 9040B, 9045C, 9050C, 9065,1311, 1312, 3005A, 3050B. Organic Parameters: SW-846 3540C, 3546, 3550B, 3580A, 3630C, 5030B, 5035, 8260B, 8270C, 8330, 8151A, 8015B, 8082, 8081A.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA935. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: SM9222B, 9221E, 9223B, 9215B, 4500CN-CE, 4500NO3-F, 4500F-C, EPA 300.0, 200.7, 200.8, 245.2, 2540C, SM2120B, 2320B, 2510B, 5310C, SM4500H-B. Organic Parameters: EPA 332, 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM5210B, EPA 410.4, SM5220D, 4500CI-E, EPA 300.0, SM2120B, SM4500F-BC, EPA 200.7, 351.1, LACHAT 10-107-06-2-D, EPA 353.2, SM4500NO3-F, 4500NO2-B, EPA 1664A, SM5310B, C or D, 4500-PE, EPA 420.1, SM510ABC, SM4500P-B5+E, 2540B, 2540C, 2540D, EPA 120.1, SM2510B, SM15 426C, 9222D, 9221B, 9221C, 9221E, 9222B, 9215B, 2310B, 2320B, 4500NH3-H, 4500-S D, EPA 350.1, 350.2, SW-846 1312, 6020, 6020A, 7470A, 5540C, 4500H-B, EPA 200.8, SM3500Cr-D, 4500CN-CE, EPA 245.1, 245.2, SW-846 9040B, 3005A, 3015, EPA 6010B, 6010C, 7196A, 3060A, SW-846 9010B, 9030B. Organic Parameters: SW-846 8260B, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3510C, EPA 608, 624, 625, SW-846 3630C, 5030B, 8081A, 8081B, 8082, 8082A, 8151A, 8330, NJ OQA-QAM-025 Rev.7, NJ EPH.)

Solid & Chemical Materials (Inorganic Parameters: SW-846, 6010B, 6010C, 7196A, 3060A, 9010B, 9030B, 1010, 1030, 1311, 1312, 3005A, 3050B, 7471A, 7471B, 9014, 9012A, 9040B, 9045C, 9050A, 9065. Organic Parameters: SW-846 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 8260B, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3540C, 3545, 3546, 3550B, 3580A, 3630C, 5030B, 5035L, 5035H, NJ OQA-QAM-025 Rev.7, NJ EPH.)

New York Department of Health Certificate/Lab ID: 11148. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: SM9223B, 9222B, 9215B, EPA 200.8, 200.7, 245.2, SM5310C, EPA 332.0, SM2320B, EPA 300.0, SM2120B, 4500CN-E, 4500F-C, 4500H-B, 4500NO3-F, 2540C, SM 2510B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: SM9221E, 9222D, 9221B, 9222B, 9215B, 5210B, 5310C, EPA 410.4, SM5220D, 2310B-4a, 2320B, EPA 200.7, 300.0, SM4500CL-E, 4500F-C, SM15 426C, EPA 350.1, SM4500NH3-BH, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, LACHAT 10-107-04-1-C, SM4500-NO3-F, 4500-NO2-B, 4500P-E, 2540C, 2540B, 2540D, EPA 200.8, EPA 6010B, 6020, EPA 7196A, SM3500Cr-D, EPA 245.1, 245.2, 7470A, SM2120B, LACHAT 10-204-00-1-A, EPA 9040B, SM4500-HB, EPA 1664A, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, SM4500S-D, SM5540C, EPA 3005A, 9010B, 9030B.. Organic Parameters: EPA 624, 8260B, 8270C, 625, 608, 8081A, 8151A, 8330, 8082, EPA 3510C, 5030B.)

Solid & Hazardous Waste (Inorganic Parameters: 1010, 1030, EPA 6010B, 7196A, 7471A, 9012A, 9014, 9040B, 9045C, 9065, 9050, EPA 1311, 1312, 3005A, 3050B, 9010B, 9030B. Organic Parameters: EPA 8260B, 8270C, 8015B, 8081A, 8151A, 8330, 8082, 3540C, 3545, 3546, 3580, 5030B, 5035.)

North Carolina Department of the Environment and Natural Resources Certificate/Lab ID : 666. Organic Parameters: MA-EPH, MA-VPH.

Pennsylvania Department of Environmental Protection Certificate/Lab ID : 68-03671. **NELAP Accredited.**
Drinking Water (Organic Parameters: EPA 524.2, 504.1)

Non-Potable Water (Inorganic Parameters: EPA 1312, 200.7, 410.4, 1664A, SM2540D, 5210B, 5220D, 4500-P, BE.
Organic Parameters: EPA 3510C, 3005A, 3630C, 5030B, 625, 624, 608, 8081A, 8081B, 8082, 802A, 8151A, 8260B, 8270C, 8270D, 8330)

Solid & Hazardous Waste (Inorganic Parameters: EPA 350.1, 1010, 1030, 1311, 1312, 3050B, 3060A, 6010B, 6010C, 7196A, 7471A, 9010B, 9012A, 9014, 9040B, 9045C, 9050, 9065, SM 4500NH₃-H. Organic Parameters: 3540C, 3546, 3580A, 3630C, 5035, 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8260B, 8270C, 8270D, 8330)

Rhode Island Department of Health Certificate/Lab ID: LAO00065. **NELAP Accredited via NY-DOH.**

Refer to MA-DEP Certificate for Potable and Non-Potable Water.

Refer to NJ-DEP Certificate for Potable and Non-Potable Water.

Texas Commission on Environmental Quality Certificate/Lab ID: T104704476-09-1. **NELAP Accredited.**

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664, 200.7, 200.8, 245.1, 245.2, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 6010, 6020, 7196, 7470, 9040, SM 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CL-E, 4500CN-E, 4500F-C, 4500H+B, 4500NH₃-H, 4500NO₂B, 4500P-E, 4500 S²⁻ D, 510C, 5210B, 5220D, 5310C, 5540C. Organic Parameters: EPA 608, 624, 625, 8081, 8082, 8151, 8260, 8270, 8330.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 1312, 9012, 9014, 9040, 9045, 9050, 9065.)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID: 460195. **NELAP Accredited.**

Non-Potable Water (Inorganic Parameters: EPA 3005A, 3015, 1312, 6010B, 6010C, SM4500S-D, SM4500-CN-CE, Lachat 10-204-00-1-X. Organic Parameters: EPA 8260B)

Solid & Hazardous Waste (Inorganic Parameters: EPA 3050B, 1311, 1312, 6010B, 6010C, 9030B, 9010B, 9012A, 9014. Organic Parameters: EPA 5035, 5030B, 8260B.)

Department of Defense, L-A-B Certificate/Lab ID: L2217.

Drinking Water (Inorganic Parameters: SM 4500H-B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: EPA 200.7, 200.8, 6010B, 6020, 245.1, 245.2, 7470A, 9040B, 300.0, 332.0, 6860, 353.2, 410.4, 9060, 1664A, SM 4500CN-E, 4500H-B, 4500NO₃-F, 5220D, 5310C, 2320B, 2540C, 3005A, 3015, 9010B, 9056. Organic Parameters: EPA 8260B, 8270C, 8330A, 625, 8082, 8081A, 3510C, 5030B, MassDEP EPH, MassDEP VPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 200.7, 6010B, 7471A, 9010, 9012A, 6860, 1311, 1312, 3050B, 7196A, 9010B, 3500-CR-D, 4500CN-CE, 2540G, Organic Parameters: EPA 8260B, 8270C, 8330A/B-prep, 8082, 8081A, 3540C, 3546, 3580A, 5035A, MassDEP EPH, MassDEP VPH.)

The following analytes are not included in our current NELAP/TNI Scope of Accreditation:

EPA 8260B: Freon-113, 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene. **EPA 8330A**: PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT. **EPA 8270C**: Methyl naphthalene, Dimethyl naphthalene, Total Methyl naphthalenes, Total Dimethyl naphthalenes, 1,4-Diphenylhydrazine (Azobenzene). **EPA 625**: 4-Chloroaniline, 4-Methylphenol. Total Phosphorus in a soil matrix, Chloride in a soil matrix, TKN in a soil matrix, NO₂ in a soil matrix, NO₃ in a soil matrix, SO₄ in a soil matrix.

CHAIN OF CUSTODY RECORD

ALPHA Job # E 1203 632

H&A FILE NO. 06318-5720
PROJECT NAME FWC Energy Int. Parcel
H&A CONTACT C. Worth

LABORATORY Accutest
ADDRESS 495 Tech Ctr
CONTACT
DELIVERY DATE
TURNAROUND TIME
PROJECT MANAGER

Page 1 of 1
Phone (617) 886-7400
Fax (617) 886-7600

Sample No.	Date	Time	Depth	Type	Analysis Requested										Number of Containers	Comments (special instructions, precautions, additional method numbers, etc.)	
					VOA	ABNs PAH only	MCP Metals	Pesticides PCBs	VPH Full Suite C-ranges only	EPH Full Suite C-ranges only	TPH (specify)	TCLP (specify)	Reactivity Ignitability Corrosivity				
HA-204 S1	3/2/12	1025	0-0.5	Soil													<p>② Hold pending analysis of other samples - Contact dole lab for info</p> <p>① PCBs by Soxhlet Extract 3540c</p>
HA-204 S2		1030	1-2														
HA-204 S3		1035	2-3														
HA-204 S4		1040	3-5														
HA-204 S5		1045	5-7														
HA-205 S1		1055	0-0.5														
HA-205 S2		1105	1-2														
HA-205 S3		1110	2-3														
HA-205 S4		1115	3-5														
HA-205 S5		1120	5-7														
Sampled and Relinquished by Signature <u>David M. Palleiro</u> Print <u>David Palleiro</u> Firm <u>H&A</u> Date <u>3/2/12</u> Time					Received by Signature <u>Michael A. Augusik</u> Print <u>Michael A. Augusik</u> Firm <u>H&A</u> Date <u>3/2/12</u> Time <u>15:15</u>										VOA Vial Amber Glass Plastic Bottle Preservative Volume		<p>① Hold pending analysis of other samples - Contact dole lab for info</p>
Relinquished by Signature <u>Michael A. Augusik</u> Print <u>Michael A. Augusik</u> Firm <u>H&A</u> Date <u>3/2/12</u> Time <u>15:30</u>					Received by Signature <u>Elizabeth R.</u> Print <u>Elizabeth R.</u> Firm <u>Alpha</u> Date <u>3/2/12</u> Time <u>1805</u>										VOA Vial Amber Glass Clear Glass Preservative Volume		
Relinquished by Signature <u>Elizabeth R.</u> Print <u>Elizabeth R.</u> Firm <u>Alpha</u> Date <u>3/2/12</u> Time <u>1805</u>					Received by Signature <u>Elizabeth R.</u> Print <u>Elizabeth R.</u> Firm <u>Alpha</u> Date <u>3/2/12</u> Time <u>1805</u>										VOA Vial Amber Glass Clear Glass Preservative Volume		

If Presumptive Certainty Data Package is needed, initial all sections:
The required minimum field QC samples, as designated in BWSC CAM-VII have been or will be collected, as appropriate, to meet the requirements of Presumptive Certainty.
Matrix Spike (MS) samples for MCP Metals and/or Cyanide are included and identified herein.
This Chain of Custody Record (specify) includes X does not include samples defined as Drinking Water Samples.
If this Chain of Custody Record identifies samples defined as Drinking Water Samples, Trip Blanks and Field Duplicates are included and identified and analysis of TTCs are required, as appropriate. Laboratory should (specify if applicable) analyze

Presumptive Certainty Data Package (Laboratory to use applicable DEP CAM methods)

Required Reporting Limits and Data Quality Objectives

RC-S1 ☐ RC-S2 ☐ RC-GW1 ☐ RC-GW2 ☐ RC-GW3 ☐ RC-GW4 ☐ RC-GW5 ☐ RC-GW6 ☐ RC-GW7 ☐ RC-GW8 ☐ RC-GW9 ☐ RC-GW10 ☐ RC-GW11 ☐ RC-GW12 ☐ RC-GW13 ☐ RC-GW14 ☐ RC-GW15 ☐ RC-GW16 ☐ RC-GW17 ☐ RC-GW18 ☐ RC-GW19 ☐ RC-GW20 ☐ RC-GW21 ☐ RC-GW22 ☐ RC-GW23 ☐ RC-GW24 ☐ RC-GW25 ☐ RC-GW26 ☐ RC-GW27 ☐ RC-GW28 ☐ RC-GW29 ☐ RC-GW30 ☐ RC-GW31 ☐ RC-GW32 ☐ RC-GW33 ☐ RC-GW34 ☐ RC-GW35 ☐ RC-GW36 ☐ RC-GW37 ☐ RC-GW38 ☐ RC-GW39 ☐ RC-GW40 ☐ RC-GW41 ☐ RC-GW42 ☐ RC-GW43 ☐ RC-GW44 ☐ RC-GW45 ☐ RC-GW46 ☐ RC-GW47 ☐ RC-GW48 ☐ RC-GW49 ☐ RC-GW50 ☐ RC-GW51 ☐ RC-GW52 ☐ RC-GW53 ☐ RC-GW54 ☐ RC-GW55 ☐ RC-GW56 ☐ RC-GW57 ☐ RC-GW58 ☐ RC-GW59 ☐ RC-GW60 ☐ RC-GW61 ☐ RC-GW62 ☐ RC-GW63 ☐ RC-GW64 ☐ RC-GW65 ☐ RC-GW66 ☐ RC-GW67 ☐ RC-GW68 ☐ RC-GW69 ☐ RC-GW70 ☐ RC-GW71 ☐ RC-GW72 ☐ RC-GW73 ☐ RC-GW74 ☐ RC-GW75 ☐ RC-GW76 ☐ RC-GW77 ☐ RC-GW78 ☐ RC-GW79 ☐ RC-GW80 ☐ RC-GW81 ☐ RC-GW82 ☐ RC-GW83 ☐ RC-GW84 ☐ RC-GW85 ☐ RC-GW86 ☐ RC-GW87 ☐ RC-GW88 ☐ RC-GW89 ☐ RC-GW90 ☐ RC-GW91 ☐ RC-GW92 ☐ RC-GW93 ☐ RC-GW94 ☐ RC-GW95 ☐ RC-GW96 ☐ RC-GW97 ☐ RC-GW98 ☐ RC-GW99 ☐ RC-GW100 ☐ RC-GW101 ☐ RC-GW102 ☐ RC-GW103 ☐ RC-GW104 ☐ RC-GW105 ☐ RC-GW106 ☐ RC-GW107 ☐ RC-GW108 ☐ RC-GW109 ☐ RC-GW110 ☐ RC-GW111 ☐ RC-GW112 ☐ RC-GW113 ☐ RC-GW114 ☐ RC-GW115 ☐ RC-GW116 ☐ RC-GW117 ☐ RC-GW118 ☐ RC-GW119 ☐ RC-GW120 ☐ RC-GW121 ☐ RC-GW122 ☐ RC-GW123 ☐ RC-GW124 ☐ RC-GW125 ☐ RC-GW126 ☐ RC-GW127 ☐ RC-GW128 ☐ RC-GW129 ☐ RC-GW130 ☐ RC-GW131 ☐ RC-GW132 ☐ RC-GW133 ☐ RC-GW134 ☐ RC-GW135 ☐ RC-GW136 ☐ RC-GW137 ☐ RC-GW138 ☐ RC-GW139 ☐ RC-GW140 ☐ RC-GW141 ☐ RC-GW142 ☐ RC-GW143 ☐ RC-GW144 ☐ RC-GW145 ☐ RC-GW146 ☐ RC-GW147 ☐ RC-GW148 ☐ RC-GW149 ☐ RC-GW150 ☐ RC-GW151 ☐ RC-GW152 ☐ RC-GW153 ☐ RC-GW154 ☐ RC-GW155 ☐ RC-GW156 ☐ RC-GW157 ☐ RC-GW158 ☐ RC-GW159 ☐ RC-GW160 ☐ RC-GW161 ☐ RC-GW162 ☐ RC-GW163 ☐ RC-GW164 ☐ RC-GW165 ☐ RC-GW166 ☐ RC-GW167 ☐ RC-GW168 ☐ RC-GW169 ☐ RC-GW170 ☐ RC-GW171 ☐ RC-GW172 ☐ RC-GW173 ☐ RC-GW174 ☐ RC-GW175 ☐ RC-GW176 ☐ RC-GW177 ☐ RC-GW178 ☐ RC-GW179 ☐ RC-GW180 ☐ RC-GW181 ☐ RC-GW182 ☐ RC-GW183 ☐ RC-GW184 ☐ RC-GW185 ☐ RC-GW186 ☐ RC-GW187 ☐ RC-GW188 ☐ RC-GW189 ☐ RC-GW190 ☐ RC-GW191 ☐ RC-GW192 ☐ RC-GW193 ☐ RC-GW194 ☐ RC-GW195 ☐ RC-GW196 ☐ RC-GW197 ☐ RC-GW198 ☐ RC-GW199 ☐ RC-GW200 ☐ RC-GW201 ☐ RC-GW202 ☐ RC-GW203 ☐ RC-GW204 ☐ RC-GW205 ☐ RC-GW206 ☐ RC-GW207 ☐ RC-GW208 ☐ RC-GW209 ☐ RC-GW210 ☐ RC-GW211 ☐ RC-GW212 ☐ RC-GW213 ☐ RC-GW214 ☐ RC-GW215 ☐ RC-GW216 ☐ RC-GW217 ☐ RC-GW218 ☐ RC-GW219 ☐ RC-GW220 ☐ RC-GW221 ☐ RC-GW222 ☐ RC-GW223 ☐ RC-GW224 ☐ RC-GW225 ☐ RC-GW226 ☐ RC-GW227 ☐ RC-GW228 ☐ RC-GW229 ☐ RC-GW230 ☐ RC-GW231 ☐ RC-GW232 ☐ RC-GW233 ☐ RC-GW234 ☐ RC-GW235 ☐ RC-GW236 ☐ RC-GW237 ☐ RC-GW238 ☐ RC-GW239 ☐ RC-GW240 ☐ RC-GW241 ☐ RC-GW242 ☐ RC-GW243 ☐ RC-GW244 ☐ RC-GW245 ☐ RC-GW246 ☐ RC-GW247 ☐ RC-GW248 ☐ RC-GW249 ☐ RC-GW250 ☐ RC-GW251 ☐ RC-GW252 ☐ RC-GW253 ☐ RC-GW254 ☐ RC-GW255 ☐ RC-GW256 ☐ RC-GW257 ☐ RC-GW258 ☐ RC-GW259 ☐ RC-GW260 ☐ RC-GW261 ☐ RC-GW262 ☐ RC-GW263 ☐ RC-GW264 ☐ RC-GW265 ☐ RC-GW266 ☐ RC-GW267 ☐ RC-GW268 ☐ RC-GW269 ☐ RC-GW270 ☐ RC-GW271 ☐ RC-GW272 ☐ RC-GW273 ☐ RC-GW274 ☐ RC-GW275 ☐ RC-GW276 ☐ RC-GW277 ☐ RC-GW278 ☐ RC-GW279 ☐ RC-GW280 ☐ RC-GW281 ☐ RC-GW282 ☐ RC-GW283 ☐ RC-GW284 ☐ RC-GW285 ☐ RC-GW286 ☐ RC-GW287 ☐ RC-GW288 ☐ RC-GW289 ☐ RC-GW290 ☐ RC-GW291 ☐ RC-GW292 ☐ RC-GW293 ☐ RC-GW294 ☐ RC-GW295 ☐ RC-GW296 ☐ RC-GW297 ☐ RC-GW298 ☐ RC-GW299 ☐ RC-GW300 ☐ RC-GW301 ☐ RC-GW302 ☐ RC-GW303 ☐ RC-GW304 ☐ RC-GW305 ☐ RC-GW306 ☐ RC-GW307 ☐ RC-GW308 ☐ RC-GW309 ☐ RC-GW310 ☐ RC-GW311 ☐ RC-GW312 ☐ RC-GW313 ☐ RC-GW314 ☐ RC-GW315 ☐ RC-GW316 ☐ RC-GW317 ☐ RC-GW318 ☐ RC-GW319 ☐ RC-GW320 ☐ RC-GW321 ☐ RC-GW322 ☐ RC-GW323 ☐ RC-GW324 ☐ RC-GW325 ☐ RC-GW326 ☐ RC-GW327 ☐ RC-GW328 ☐ RC-GW329 ☐ RC-GW330 ☐ RC-GW331 ☐ RC-GW332 ☐ RC-GW333 ☐ RC-GW334 ☐ RC-GW335 ☐ RC-GW336 ☐ RC-GW337 ☐ RC-GW338 ☐ RC-GW339 ☐ RC-GW340 ☐ RC-GW341 ☐ RC-GW342 ☐ RC-GW343 ☐ RC-GW344 ☐ RC-GW345 ☐ RC-GW346 ☐ RC-GW347 ☐ RC-GW348 ☐ RC-GW349 ☐ RC-GW350 ☐ RC-GW351 ☐ RC-GW352 ☐ RC-GW353 ☐ RC-GW354 ☐ RC-GW355 ☐ RC-GW356 ☐ RC-GW357 ☐ RC-GW358 ☐ RC-GW359 ☐ RC-GW360 ☐ RC-GW361 ☐ RC-GW362 ☐ RC-GW363 ☐ RC-GW364 ☐ RC-GW365 ☐ RC-GW366 ☐ RC-GW367 ☐ RC-GW368 ☐ RC-GW369 ☐ RC-GW370 ☐ RC-GW371 ☐ RC-GW372 ☐ RC-GW373 ☐ RC-GW374 ☐ RC-GW375 ☐ RC-GW376 ☐ RC-GW377 ☐ RC-GW378 ☐ RC-GW379 ☐ RC-GW380 ☐ RC-GW381 ☐ RC-GW382 ☐ RC-GW383 ☐ RC-GW384 ☐ RC-GW385 ☐ RC-GW386 ☐ RC-GW387 ☐ RC-GW388 ☐ RC-GW389 ☐ RC-GW390 ☐ RC-GW391 ☐ RC-GW392 ☐ RC-GW393 ☐ RC-GW394 ☐ RC-GW395 ☐ RC-GW396 ☐ RC-GW397 ☐ RC-GW398 ☐ RC-GW399 ☐ RC-GW400 ☐ RC-GW401 ☐ RC-GW402 ☐ RC-GW403 ☐ RC-GW404 ☐ RC-GW405 ☐ RC-GW406 ☐ RC-GW407 ☐ RC-GW408 ☐ RC-GW409 ☐ RC-GW410 ☐ RC-GW411 ☐ RC-GW412 ☐ RC-GW413 ☐ RC-GW414 ☐ RC-GW415 ☐ RC-GW416 ☐ RC-GW417 ☐ RC-GW418 ☐ RC-GW419 ☐ RC-GW420 ☐ RC-GW421 ☐ RC-GW422 ☐ RC-GW423 ☐ RC-GW424 ☐ RC-GW425 ☐ RC-GW426 ☐ RC-GW427 ☐ RC-GW428 ☐ RC-GW429 ☐ RC-GW430 ☐ RC-GW431 ☐ RC-GW432 ☐ RC-GW433 ☐ RC-GW434 ☐ RC-GW435 ☐ RC-GW436 ☐ RC-GW437 ☐ RC-GW438 ☐ RC-GW439 ☐ RC-GW440 ☐ RC-GW441 ☐ RC-GW442 ☐ RC-GW443 ☐ RC-GW444 ☐ RC-GW445 ☐ RC-GW446 ☐ RC-GW447 ☐ RC-GW448 ☐ RC-GW449 ☐ RC-GW450 ☐ RC-GW451 ☐ RC-GW452 ☐ RC-GW453 ☐ RC-GW454 ☐ RC-GW455 ☐ RC-GW456 ☐ RC-GW457 ☐ RC-GW458 ☐ RC-GW459 ☐ RC-GW460 ☐ RC-GW461 ☐ RC-GW462 ☐ RC-GW463 ☐ RC-GW464 ☐ RC-GW465 ☐ RC-GW466 ☐ RC-GW467 ☐ RC-GW468 ☐ RC-GW469 ☐ RC-GW470 ☐ RC-GW471 ☐ RC-GW472 ☐ RC-GW473 ☐ RC-GW474 ☐ RC-GW475 ☐ RC-GW476 ☐ RC-GW477 ☐ RC-GW478 ☐ RC-GW479 ☐ RC-GW480 ☐ RC-GW481 ☐ RC-GW482 ☐ RC-GW483 ☐ RC-GW484 ☐ RC-GW485 ☐ RC-GW486 ☐ RC-GW487 ☐ RC-GW488 ☐ RC-GW489 ☐ RC-GW490 ☐ RC-GW491 ☐ RC-GW492 ☐ RC-GW493 ☐ RC-GW494 ☐ RC-GW495 ☐ RC-GW496 ☐ RC-GW497 ☐ RC-GW498 ☐ RC-GW499 ☐ RC-GW500 ☐ RC-GW501 ☐ RC-GW502 ☐ RC-GW503 ☐ RC-GW504 ☐ RC-GW505 ☐ RC-GW506 ☐ RC-GW507 ☐ RC-GW508 ☐ RC-GW509 ☐ RC-GW510 ☐ RC-GW511 ☐ RC-GW512 ☐ RC-GW513 ☐ RC-GW514 ☐ RC-GW515 ☐ RC-GW516 ☐ RC-GW517 ☐ RC-GW518 ☐ RC-GW519 ☐ RC-GW520 ☐ RC-GW521 ☐ RC-GW522 ☐ RC-GW523 ☐ RC-GW524 ☐ RC-GW525 ☐ RC-GW526 ☐ RC-GW527 ☐ RC-GW528 ☐ RC-GW529 ☐ RC-GW530 ☐ RC-GW531 ☐ RC-GW532 ☐ RC-GW533 ☐ RC-GW534 ☐ RC-GW535 ☐ RC-GW536 ☐ RC-GW537 ☐ RC-GW538 ☐ RC-GW539 ☐ RC-GW540 ☐ RC-GW541 ☐ RC-GW542 ☐ RC-GW543 ☐ RC-GW544 ☐ RC-GW545 ☐ RC-GW546 ☐ RC-GW547 ☐ RC-GW548 ☐ RC-GW549 ☐ RC-GW550 ☐ RC-GW551 ☐ RC-GW552 ☐ RC-GW553 ☐ RC-GW554 ☐ RC-GW555 ☐ RC-GW556 ☐ RC-GW557 ☐ RC-GW558 ☐ RC-GW559 ☐ RC-GW560 ☐ RC-GW561 ☐ RC-GW562 ☐ RC-GW563 ☐ RC-GW564 ☐ RC-GW565 ☐ RC-GW566 ☐ RC-GW567 ☐ RC-GW568 ☐ RC-GW569 ☐ RC-GW570 ☐ RC-GW571 ☐ RC-GW572 ☐ RC-GW573 ☐ RC-GW574 ☐ RC-GW575 ☐ RC-GW576 ☐ RC-GW577 ☐ RC-GW578 ☐ RC-GW579 ☐ RC-GW580 ☐ RC-GW581 ☐ RC-GW582 ☐ RC-GW583 ☐ RC-GW584 ☐ RC-GW585 ☐ RC-GW586 ☐ RC-GW587 ☐ RC-GW588 ☐ RC-GW589 ☐ RC-GW590 ☐ RC-GW591 ☐ RC-GW592 ☐ RC-GW593 ☐ RC-GW594 ☐ RC-GW595 ☐ RC-GW596 ☐ RC-GW597 ☐ RC-GW598 ☐ RC-GW599 ☐ RC-GW600 ☐ RC-GW601 ☐ RC-GW602 ☐ RC-GW603 ☐ RC-GW604 ☐ RC-GW605 ☐ RC-GW606 ☐ RC-GW607 ☐ RC-GW608 ☐ RC-GW609 ☐ RC-GW610 ☐ RC-GW611 ☐ RC-GW612 ☐ RC-GW613 ☐ RC-GW614 ☐ RC-GW615 ☐ RC-GW616 ☐ RC-GW617 ☐ RC-GW618 ☐ RC-GW619 ☐ RC-GW620 ☐ RC-GW621 ☐ RC-GW622 ☐ RC-GW623 ☐ RC-GW624 ☐ RC-GW625 ☐ RC-GW626 ☐ RC-GW627 ☐ RC-GW628 ☐ RC-GW629 ☐ RC-GW630 ☐ RC-GW631 ☐ RC-GW632 ☐ RC-GW633 ☐ RC-GW634 ☐ RC-GW635 ☐ RC-GW636 ☐ RC-GW637 ☐ RC-GW638 ☐ RC-GW639 ☐ RC-GW640 ☐ RC-GW641 ☐ RC-GW642 ☐ RC-GW643 ☐ RC-GW644 ☐ RC-GW645 ☐ RC-GW646 ☐ RC-GW647 ☐ RC-GW648 ☐ RC-GW649 ☐ RC-GW650 ☐ RC-GW651 ☐ RC-GW652 ☐ RC-GW653 ☐ RC-GW654 ☐ RC-GW655 ☐ RC-GW656 ☐ RC-GW657 ☐ RC-GW658 ☐ RC-GW659 ☐ RC-GW660 ☐ RC-GW661 ☐ RC-GW662 ☐ RC-GW663 ☐ RC-GW664 ☐ RC-GW665 ☐ RC-GW666 ☐ RC-GW667 ☐ RC-GW668 ☐ RC-GW669 ☐ RC-GW670 ☐ RC-GW671 ☐ RC-GW672 ☐ RC-GW673 ☐ RC-GW674 ☐ RC-GW675 ☐ RC-GW676 ☐ RC-GW677 ☐ RC-GW678 ☐ RC-GW679 ☐ RC-GW680 ☐ RC-GW681 ☐ RC-GW682 ☐ RC-GW683 ☐ RC-GW684 ☐ RC-GW685 ☐ RC-GW686 ☐ RC-GW687 ☐ RC-GW688 ☐ RC-GW689 ☐ RC-GW690 ☐ RC-GW691 ☐ RC-GW692 ☐ RC-GW693 ☐ RC-GW694 ☐ RC-GW695 ☐ RC-GW696 ☐ RC-GW697 ☐ RC-GW698 ☐ RC-GW699 ☐ RC-GW700 ☐ RC-GW701 ☐ RC-GW702 ☐ RC-GW703 ☐ RC-GW704 ☐ RC-GW705 ☐ RC-GW706 ☐ RC-GW707 ☐ RC-GW708 ☐ RC-GW709 ☐ RC-GW710 ☐ RC-GW711 ☐ RC-GW712 ☐ RC-GW713 ☐ RC-GW714 ☐ RC-GW715 ☐ RC-GW716 ☐ RC-GW717 ☐ RC-GW718 ☐ RC-GW719 ☐ RC-GW720 ☐ RC-GW721 ☐ RC-GW722 ☐ RC-GW723 ☐ RC-GW724 ☐ RC-GW725 ☐ RC-GW726 ☐ RC-GW727 ☐ RC-GW728 ☐ RC-GW729 ☐ RC-GW730 ☐ RC-GW731 ☐ RC-GW732 ☐ RC-GW733 ☐ RC-GW734 ☐ RC-GW735 ☐ RC-GW736 ☐ RC-GW737 ☐ RC-GW738 ☐ RC-GW739 ☐ RC-GW740 ☐ RC-GW741 ☐ RC-GW742 ☐ RC-GW743 ☐ RC-GW744 ☐ RC-GW745 ☐ RC-GW746 ☐ RC-GW747 ☐ RC-GW748 ☐ RC-GW749 ☐ RC-GW750 ☐ RC-GW751 ☐ RC-GW752 ☐ RC-GW753 ☐ RC-GW754 ☐ RC-GW755 ☐ RC-GW756 ☐ RC-GW757 ☐ RC-GW758 ☐ RC-GW759 ☐ RC-GW760 ☐ RC-GW761 ☐ RC-GW762 ☐ RC-GW763 ☐ RC-GW764 ☐ RC-GW765 ☐ RC-GW766 ☐ RC-GW767 ☐ RC-GW768 ☐ RC-GW769 ☐ RC-GW770 ☐ RC-GW771 ☐ RC-GW772 ☐ RC-GW773 ☐ RC-GW774 ☐ RC-GW775 ☐ RC-GW776 ☐ RC-GW777 ☐ RC-GW778 ☐ RC-GW779 ☐ RC-GW780 ☐ RC-GW781 ☐ RC-GW782 ☐ RC-GW783 ☐ RC-GW784 ☐ RC-GW785 ☐ RC-GW786 ☐ RC-GW787 ☐ RC-GW788 ☐ RC-GW789 ☐ RC-GW790 ☐ RC-GW791 ☐ RC-GW792 ☐ RC-GW793 ☐ RC-GW794 ☐ RC-GW795 ☐ RC-GW796 ☐ RC-GW797 ☐ RC-GW798 ☐ RC-GW799 ☐ RC-GW800 ☐ RC-GW801 ☐ RC-GW802 ☐ RC-GW803 ☐ RC-GW804



ANALYTICAL REPORT

Lab Number:	L1203636
Client:	Haley & Aldrich, Inc. 465 Medford Street, Suite 2200 Charlestown, MA 02129-1400
ATTN:	Cole Worthy
Phone:	(617) 886-7341
Project Name:	FMR. ENERGY INT PARCEL
Project Number:	06318-520
Report Date:	03/08/12

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Certifications & Approvals: MA (M-MA086), NY (11148), CT (PH-0574), NH (2003), NJ NELAP (MA935), RI (LAO00065), ME (MA00086), PA (68-03671), USDA (Permit #P-330-11-00240), NC (666), TX (T104704476), DOD (L2217), US Army Corps of Engineers.

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com



Project Name: FMR. ENERGY INT PARCEL
Project Number: 06318-520

Lab Number: L1203636
Report Date: 03/08/12

Alpha Sample ID	Client ID	Sample Location	Collection Date/Time
L1203636-01	HA-206 S1	495 TECH CTR	03/02/12 11:28
L1203636-02	HA-206 S2	495 TECH CTR	03/02/12 11:32
L1203636-03	HA-206 S3	495 TECH CTR	03/02/12 11:40
L1203636-04	HA-206 S4	495 TECH CTR	03/02/12 11:45
L1203636-05	HA-206 S5	495 TECH CTR	03/02/12 11:50
L1203636-06	HA-207 S1	495 TECH CTR	03/02/12 11:55
L1203636-07	HA-207 S2	495 TECH CTR	03/02/12 12:00
L1203636-08	HA-207 S3	495 TECH CTR	03/02/12 12:10
L1203636-09	HA-207 S4	495 TECH CTR	03/02/12 12:20
L1203636-10	HA-207 S5	495 TECH CTR	03/02/12 12:30

Project Name: FMR. ENERGY INT PARCEL

Lab Number: L1203636

Project Number: 06318-520

Report Date: 03/08/12

MADEP MCP Response Action Analytical Report Certification

This form provides certifications for all samples performed by MCP methods. Please refer to the Sample Results and Container Information sections of this report for specification of MCP methods used for each analysis. The following questions pertain only to MCP Analytical Methods.

An affirmative response to questions A through F is required for "Presumptive Certainty" status		
A	Were all samples received in a condition consistent with those described on the Chain-of-Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding times?	YES
B	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?	YES
C	Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?	YES
D	Does the laboratory report comply with all the reporting requirements specified in CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data?"	YES
E a.	VPH, EPH, and APH Methods only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications).	N/A
E b.	APH and TO-15 Methods only: Was the complete analyte list reported for each method?	N/A
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all "No" responses to Questions A through E)?	YES
A response to questions G, H and I is required for "Presumptive Certainty" status		
G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	NO
H	Were all QC performance standards specified in the CAM protocol(s) achieved?	NO
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	YES
For any questions answered "No", please refer to the case narrative section on the following page(s).		

Please note that sample matrix information is located in the Sample Results section of this report.



Project Name: FMR. ENERGY INT PARCEL
Project Number: 06318-520

Lab Number: L1203636
Report Date: 03/08/12

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Performance criteria for CAM and RCP methods allow for some LCS compound failures to occur and still be within method compliance. In these instances, the specific failures are not narrated but are noted in the associated QC table. This information is also incorporated in the Data Usability format for our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

Please contact Client Services at 800-624-9220 with any questions.

MCP Related Narratives

PCBs

L1203636-01 has elevated detection limits due to the dilution required by matrix interferences encountered during the concentration of the sample.

L1203636-06 has elevated detection limits due to the dilution required by the matrix interferences encountered during the concentration of the sample and the analytical dilution required by the target compounds present in the sample.

In reference to question G:

L1203636-06: One or more of the target analytes did not achieve the requested CAM reporting limits.

Project Name: FMR. ENERGY INT PARCEL
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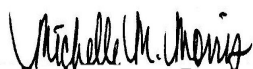
Case Narrative (continued)

In reference to question H:

The surrogate recoveries for L1203636-06 are below the acceptance criteria for 2,4,5,6-Tetrachloro-m-xylene and Decachlorobiphenyl (all at 0%) due to the dilution required to quantitate the sample. Re-extraction was not required; therefore, the results of the original analysis are reported.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:



Michelle M. Morris

Title: Technical Director/Representative

Date: 03/08/12

ORGANICS

PCBS

Project Name: FMR. ENERGY INT PARCEL**Lab Number:** L1203636**Project Number:** 06318-520**Report Date:** 03/08/12**SAMPLE RESULTS**

Lab ID: L1203636-01
Client ID: HA-206 S1
Sample Location: 495 TECH CTR
Matrix: Soil
Analytical Method: 97,8082
Analytical Date: 03/05/12 15:10
Analyst: KB
Percent Solids: 84%

Date Collected: 03/02/12 11:28
Date Received: 03/02/12
Field Prep: Not Specified
Extraction Method: EPA 3540C
Extraction Date: 03/03/12 01:35
Cleanup Method1: EPA 3665A
Cleanup Date1: 03/05/12
Cleanup Method2: EPA 3660B
Cleanup Date2: 03/05/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Polychlorinated Biphenyls - Westborough Lab						
Aroclor 1016	ND		ug/kg	77.2	--	2
Aroclor 1221	ND		ug/kg	77.2	--	2
Aroclor 1232	ND		ug/kg	77.2	--	2
Aroclor 1242	ND		ug/kg	77.2	--	2
Aroclor 1248	ND		ug/kg	77.2	--	2
Aroclor 1262	ND		ug/kg	77.2	--	2
Aroclor 1268	ND		ug/kg	77.2	--	2

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	57		30-150
Decachlorobiphenyl	59		30-150
2,4,5,6-Tetrachloro-m-xylene	50		30-150
Decachlorobiphenyl	63		30-150

Project Name: FMR. ENERGY INT PARCEL**Lab Number:** L1203636**Project Number:** 06318-520**Report Date:** 03/08/12**SAMPLE RESULTS**

Lab ID: L1203636-01
Client ID: HA-206 S1
Sample Location: 495 TECH CTR
Matrix: Soil
Analytical Method: 97,8082
Analytical Date: 03/05/12 15:10
Analyst: KB
Percent Solids: 84%

Date Collected: 03/02/12 11:28
Date Received: 03/02/12
Field Prep: Not Specified
Extraction Method: EPA 3540C
Extraction Date: 03/03/12 01:35
Cleanup Method1: EPA 3665A
Cleanup Date1: 03/05/12
Cleanup Method2: EPA 3660B
Cleanup Date2: 03/05/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Polychlorinated Biphenyls - Westborough Lab						
Aroclor 1254	1030		ug/kg	77.2	--	2
Aroclor 1260	865		ug/kg	77.2	--	2

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	57		30-150
Decachlorobiphenyl	59		30-150
2,4,5,6-Tetrachloro-m-xylene	50		30-150
Decachlorobiphenyl	63		30-150

Project Name: FMR. ENERGY INT PARCEL**Lab Number:** L1203636**Project Number:** 06318-520**Report Date:** 03/08/12**SAMPLE RESULTS**

Lab ID: L1203636-02
Client ID: HA-206 S2
Sample Location: 495 TECH CTR
Matrix: Soil
Analytical Method: 97,8082
Analytical Date: 03/05/12 15:22
Analyst: KB
Percent Solids: 83%

Date Collected: 03/02/12 11:32
Date Received: 03/02/12
Field Prep: Not Specified
Extraction Method: EPA 3540C
Extraction Date: 03/03/12 01:35
Cleanup Method1: EPA 3665A
Cleanup Date1: 03/05/12
Cleanup Method2: EPA 3660B
Cleanup Date2: 03/05/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Polychlorinated Biphenyls - Westborough Lab						
Aroclor 1016	ND		ug/kg	38.7	--	1
Aroclor 1221	ND		ug/kg	38.7	--	1
Aroclor 1232	ND		ug/kg	38.7	--	1
Aroclor 1242	ND		ug/kg	38.7	--	1
Aroclor 1248	ND		ug/kg	38.7	--	1
Aroclor 1254	ND		ug/kg	38.7	--	1
Aroclor 1260	ND		ug/kg	38.7	--	1
Aroclor 1262	ND		ug/kg	38.7	--	1
Aroclor 1268	ND		ug/kg	38.7	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	75		30-150
Decachlorobiphenyl	76		30-150
2,4,5,6-Tetrachloro-m-xylene	71		30-150
Decachlorobiphenyl	92		30-150

Project Name: FMR. ENERGY INT PARCEL**Lab Number:** L1203636**Project Number:** 06318-520**Report Date:** 03/08/12**SAMPLE RESULTS**

Lab ID: L1203636-03
Client ID: HA-206 S3
Sample Location: 495 TECH CTR
Matrix: Soil
Analytical Method: 97,8082
Analytical Date: 03/05/12 15:35
Analyst: KB
Percent Solids: 87%

Date Collected: 03/02/12 11:40
Date Received: 03/02/12
Field Prep: Not Specified
Extraction Method: EPA 3540C
Extraction Date: 03/03/12 01:35
Cleanup Method1: EPA 3665A
Cleanup Date1: 03/05/12
Cleanup Method2: EPA 3660B
Cleanup Date2: 03/05/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Polychlorinated Biphenyls - Westborough Lab						
Aroclor 1016	ND		ug/kg	37.0	--	1
Aroclor 1221	ND		ug/kg	37.0	--	1
Aroclor 1232	ND		ug/kg	37.0	--	1
Aroclor 1242	ND		ug/kg	37.0	--	1
Aroclor 1248	ND		ug/kg	37.0	--	1
Aroclor 1254	ND		ug/kg	37.0	--	1
Aroclor 1260	ND		ug/kg	37.0	--	1
Aroclor 1262	ND		ug/kg	37.0	--	1
Aroclor 1268	ND		ug/kg	37.0	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	63		30-150
Decachlorobiphenyl	68		30-150
2,4,5,6-Tetrachloro-m-xylene	62		30-150
Decachlorobiphenyl	71		30-150

Project Name: FMR. ENERGY INT PARCEL**Lab Number:** L1203636**Project Number:** 06318-520**Report Date:** 03/08/12**SAMPLE RESULTS**

Lab ID: L1203636-06 **D**
Client ID: HA-207 S1
Sample Location: 495 TECH CTR
Matrix: Soil
Analytical Method: 97,8082
Analytical Date: 03/07/12 20:32
Analyst: KB
Percent Solids: 96%

Date Collected: 03/02/12 11:55
Date Received: 03/02/12
Field Prep: Not Specified
Extraction Method: EPA 3540C
Extraction Date: 03/03/12 01:35
Cleanup Method1: EPA 3665A
Cleanup Date1: 03/05/12
Cleanup Method2: EPA 3660B
Cleanup Date2: 03/05/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Polychlorinated Biphenyls - Westborough Lab						
Aroclor 1016	ND		ug/kg	338	--	10
Aroclor 1221	ND		ug/kg	338	--	10
Aroclor 1232	ND		ug/kg	338	--	10
Aroclor 1242	ND		ug/kg	338	--	10
Aroclor 1248	797		ug/kg	338	--	10
Aroclor 1262	ND		ug/kg	338	--	10
Aroclor 1268	ND		ug/kg	338	--	10

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	0	Q	30-150
Decachlorobiphenyl	0	Q	30-150
2,4,5,6-Tetrachloro-m-xylene	0	Q	30-150
Decachlorobiphenyl	0	Q	30-150

Project Name: FMR. ENERGY INT PARCEL**Lab Number:** L1203636**Project Number:** 06318-520**Report Date:** 03/08/12**SAMPLE RESULTS**

Lab ID: L1203636-06 **D**
Client ID: HA-207 S1
Sample Location: 495 TECH CTR
Matrix: Soil
Analytical Method: 97,8082
Analytical Date: 03/07/12 20:32
Analyst: KB
Percent Solids: 96%

Date Collected: 03/02/12 11:55
Date Received: 03/02/12
Field Prep: Not Specified
Extraction Method: EPA 3540C
Extraction Date: 03/03/12 01:35
Cleanup Method1: EPA 3665A
Cleanup Date1: 03/05/12
Cleanup Method2: EPA 3660B
Cleanup Date2: 03/05/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Polychlorinated Biphenyls - Westborough Lab						
Aroclor 1254	1740		ug/kg	338	--	10
Aroclor 1260	571		ug/kg	338	--	10

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	0	Q	30-150
Decachlorobiphenyl	0	Q	30-150
2,4,5,6-Tetrachloro-m-xylene	0	Q	30-150
Decachlorobiphenyl	0	Q	30-150

Project Name: FMR. ENERGY INT PARCEL**Lab Number:** L1203636**Project Number:** 06318-520**Report Date:** 03/08/12**SAMPLE RESULTS**

Lab ID: L1203636-07
Client ID: HA-207 S2
Sample Location: 495 TECH CTR
Matrix: Soil
Analytical Method: 97,8082
Analytical Date: 03/05/12 15:59
Analyst: KB
Percent Solids: 77%

Date Collected: 03/02/12 12:00
Date Received: 03/02/12
Field Prep: Not Specified
Extraction Method: EPA 3540C
Extraction Date: 03/03/12 01:35
Cleanup Method1: EPA 3665A
Cleanup Date1: 03/05/12
Cleanup Method2: EPA 3660B
Cleanup Date2: 03/05/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Polychlorinated Biphenyls - Westborough Lab						
Aroclor 1016	ND		ug/kg	42.2	--	1
Aroclor 1221	ND		ug/kg	42.2	--	1
Aroclor 1232	ND		ug/kg	42.2	--	1
Aroclor 1242	ND		ug/kg	42.2	--	1
Aroclor 1248	ND		ug/kg	42.2	--	1
Aroclor 1254	ND		ug/kg	42.2	--	1
Aroclor 1260	ND		ug/kg	42.2	--	1
Aroclor 1262	ND		ug/kg	42.2	--	1
Aroclor 1268	ND		ug/kg	42.2	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	63		30-150
Decachlorobiphenyl	70		30-150
2,4,5,6-Tetrachloro-m-xylene	63		30-150
Decachlorobiphenyl	77		30-150

Project Name: FMR. ENERGY INT PARCEL**Lab Number:** L1203636**Project Number:** 06318-520**Report Date:** 03/08/12**SAMPLE RESULTS**

Lab ID: L1203636-08
Client ID: HA-207 S3
Sample Location: 495 TECH CTR
Matrix: Soil
Analytical Method: 97,8082
Analytical Date: 03/05/12 17:01
Analyst: KB
Percent Solids: 75%

Date Collected: 03/02/12 12:10
Date Received: 03/02/12
Field Prep: Not Specified
Extraction Method: EPA 3540C
Extraction Date: 03/03/12 01:35
Cleanup Method1: EPA 3665A
Cleanup Date1: 03/05/12
Cleanup Method2: EPA 3660B
Cleanup Date2: 03/05/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Polychlorinated Biphenyls - Westborough Lab						
Aroclor 1016	ND		ug/kg	43.6	--	1
Aroclor 1221	ND		ug/kg	43.6	--	1
Aroclor 1232	ND		ug/kg	43.6	--	1
Aroclor 1242	ND		ug/kg	43.6	--	1
Aroclor 1248	ND		ug/kg	43.6	--	1
Aroclor 1254	ND		ug/kg	43.6	--	1
Aroclor 1260	ND		ug/kg	43.6	--	1
Aroclor 1262	ND		ug/kg	43.6	--	1
Aroclor 1268	ND		ug/kg	43.6	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	76		30-150
Decachlorobiphenyl	78		30-150
2,4,5,6-Tetrachloro-m-xylene	73		30-150
Decachlorobiphenyl	92		30-150

Project Name: FMR. ENERGY INT PARCEL**Lab Number:** L1203636**Project Number:** 06318-520**Report Date:** 03/08/12

Method Blank Analysis Batch Quality Control

Analytical Method: 97,8082
 Analytical Date: 03/05/12 16:12
 Analyst: KB

Extraction Method: EPA 3540C
 Extraction Date: 03/03/12 01:35
 Cleanup Method1: EPA 3665A
 Cleanup Date1: 03/05/12
 Cleanup Method2: EPA 3660B
 Cleanup Date2: 03/05/12

Parameter	Result	Qualifier	Units	RL	MDL
MCP Polychlorinated Biphenyls - Westborough Lab for sample(s): 01-03,06-08 Batch: WG521226-1					
Aroclor 1016	ND		ug/kg	31.5	--
Aroclor 1221	ND		ug/kg	31.5	--
Aroclor 1232	ND		ug/kg	31.5	--
Aroclor 1242	ND		ug/kg	31.5	--
Aroclor 1248	ND		ug/kg	31.5	--
Aroclor 1254	ND		ug/kg	31.5	--
Aroclor 1260	ND		ug/kg	31.5	--
Aroclor 1262	ND		ug/kg	31.5	--
Aroclor 1268	ND		ug/kg	31.5	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	66		30-150
Decachlorobiphenyl	74		30-150
2,4,5,6-Tetrachloro-m-xylene	68		30-150
Decachlorobiphenyl	82		30-150

Lab Control Sample Analysis**Batch Quality Control****Project Name:** FMR. ENERGY INT PARCEL**Lab Number:** L1203636**Project Number:** 06318-520**Report Date:** 03/08/12

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Polychlorinated Biphenyls - Westborough Lab Associated sample(s): 01-03,06-08 Batch: WG521226-2 WG521226-3								
Aroclor 1016	49		57		40-140	15		30
Aroclor 1260	50		55		40-140	10		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	69		77		30-150
Decachlorobiphenyl	70		71		30-150
2,4,5,6-Tetrachloro-m-xylene	70		73		30-150
Decachlorobiphenyl	79		78		30-150

INORGANICS & MISCELLANEOUS

Project Name: FMR. ENERGY INT PARCEL**Project Number:** 06318-520**Lab Number:** L1203636**Report Date:** 03/08/12**SAMPLE RESULTS****Lab ID:** L1203636-01**Client ID:** HA-206 S1**Sample Location:** 495 TECH CTR**Matrix:** Soil**Date Collected:** 03/02/12 11:28**Date Received:** 03/02/12**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	84		%	0.10	NA	1	-	03/06/12 13:30	30,2540G	SD



Project Name: FMR. ENERGY INT PARCEL

Lab Number: L1203636

Project Number: 06318-520

Report Date: 03/08/12

SAMPLE RESULTS

Lab ID: L1203636-02

Date Collected: 03/02/12 11:32

Client ID: HA-206 S2

Date Received: 03/02/12

Sample Location: 495 TECH CTR

Field Prep: Not Specified

Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	83		%	0.10	NA	1	-	03/06/12 13:30	30,2540G	SD



Project Name: FMR. ENERGY INT PARCEL**Lab Number:** L1203636**Project Number:** 06318-520**Report Date:** 03/08/12**SAMPLE RESULTS****Lab ID:** L1203636-03**Date Collected:** 03/02/12 11:40**Client ID:** HA-206 S3**Date Received:** 03/02/12**Sample Location:** 495 TECH CTR**Field Prep:** Not Specified**Matrix:** Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	87		%	0.10	NA	1	-	03/06/12 13:30	30,2540G	SD



Project Name: FMR. ENERGY INT PARCEL**Project Number:** 06318-520**Lab Number:** L1203636**Report Date:** 03/08/12**SAMPLE RESULTS****Lab ID:** L1203636-06**Client ID:** HA-207 S1**Sample Location:** 495 TECH CTR**Matrix:** Soil**Date Collected:** 03/02/12 11:55**Date Received:** 03/02/12**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	96		%	0.10	NA	1	-	03/06/12 13:30	30,2540G	SD



Project Name: FMR. ENERGY INT PARCEL**Lab Number:** L1203636**Project Number:** 06318-520**Report Date:** 03/08/12**SAMPLE RESULTS****Lab ID:** L1203636-07**Date Collected:** 03/02/12 12:00**Client ID:** HA-207 S2**Date Received:** 03/02/12**Sample Location:** 495 TECH CTR**Field Prep:** Not Specified**Matrix:** Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	77		%	0.10	NA	1	-	03/06/12 13:30	30,2540G	SD



Project Name: FMR. ENERGY INT PARCEL**Project Number:** 06318-520**Lab Number:** L1203636**Report Date:** 03/08/12**SAMPLE RESULTS****Lab ID:** L1203636-08**Client ID:** HA-207 S3**Sample Location:** 495 TECH CTR**Matrix:** Soil**Date Collected:** 03/02/12 12:10**Date Received:** 03/02/12**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	75		%	0.10	NA	1	-	03/06/12 13:30	30,2540G	SD



Lab Duplicate Analysis
Batch Quality Control**Project Name:** FMR. ENERGY INT PARCEL**Project Number:** 06318-520**Lab Number:** L1203636**Report Date:** 03/08/12

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-03,06-08 QC Batch ID: WG521647-1 QC Sample: L1203630-01 Client ID: DUP Sample						
Solids, Total	94	94	%	0		20

Project Name: FMR. ENERGY INT PARCEL**Project Number:** 06318-520**Lab Number:** L1203636**Report Date:** 03/08/12**Sample Receipt and Container Information**

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA**Cooler Information Custody Seal****Cooler**

A Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1203636-01A	Amber 120ml unpreserved	A	N/A	2.8	Y	Absent	TS(7),MCP-8082-10-3540C(365)
L1203636-02A	Amber 120ml unpreserved	A	N/A	2.8	Y	Absent	TS(7),MCP-8082-10-3540C(365)
L1203636-03A	Amber 120ml unpreserved	A	N/A	2.8	Y	Absent	TS(7),MCP-8082-10-3540C(365)
L1203636-04A	Amber 120ml unpreserved	A	N/A	2.8	Y	Absent	HOLD(14)
L1203636-05A	Amber 120ml unpreserved	A	N/A	2.8	Y	Absent	HOLD(14)
L1203636-06A	Amber 120ml unpreserved	A	N/A	2.8	Y	Absent	TS(7),MCP-8082-10-3540C(365)
L1203636-07A	Amber 120ml unpreserved	A	N/A	2.8	Y	Absent	TS(7),MCP-8082-10-3540C(365)
L1203636-08A	Amber 120ml unpreserved	A	N/A	2.8	Y	Absent	TS(7),MCP-8082-10-3540C(365)
L1203636-09A	Amber 120ml unpreserved	A	N/A	2.8	Y	Absent	HOLD(14)
L1203636-10A	Amber 120ml unpreserved	A	N/A	2.8	Y	Absent	HOLD(14)

Container Comments

L1203636-04A

L1203636-05A

L1203636-09A

L1203636-10A

*Values in parentheses indicate holding time in days

Project Name: FMR. ENERGY INT PARCEL
Project Number: 06318-520

Lab Number: L1203636
Report Date: 03/08/12

GLOSSARY

Acronyms

EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NI	- Not Ignitable.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

Footnotes

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

A	- Spectra identified as "Aldol Condensation Product".
B	- The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than five times (5x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit.
C	- Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
D	- Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
E	- Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
G	- The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
H	- The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
I	- The RPD between the results for the two columns exceeds the method-specified criteria; however, the lower value has been reported due to obvious interference.
M	- Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
NJ	- Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

Report Format: Data Usability Report



Project Name: FMR. ENERGY INT PARCEL
Project Number: 06318-520

Lab Number: L1203636
Report Date: 03/08/12

Data Qualifiers

- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- J** - Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- ND** - Not detected at the reporting limit (RL) for the sample.

Project Name: FMR. ENERGY INT PARCEL
Project Number: 06318-520

Lab Number: L1203636
Report Date: 03/08/12

REFERENCES

- 30 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.
- 97 EPA Test Methods (SW-846) with QC Requirements & Performance Standards for the Analysis of EPA SW-846 Methods under the Massachusetts Contingency Plan, WSC-CAM-IIA, IIB, IIIA, IIIB, IIIC, IIID, VA, VB, VC, VIA, VIB, VIIIA and VIIIB, July 2010.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Certificate/Approval Program Summary

Last revised January 30, 2012 - Westboro Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0574. **NELAP Accredited Solid Waste/Soil.**

Drinking Water (Inorganic Parameters: Color, pH, Turbidity, Conductivity, Alkalinity, Chloride, Free Residual Chlorine, Fluoride, Calcium Hardness, Sulfate, Nitrate, Nitrite, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Vanadium, Zinc, Total Dissolved Solids, Total Organic Carbon, Total Cyanide, Perchlorate. Organic Parameters: Volatile Organics 524.2, Total Trihalomethanes 524.2, 1,2-Dibromo-3-chloropropane (DBCP), Ethylene Dibromide (EDB), 1,4-Dioxane (Mod 8270). Microbiology Parameters: Total Coliform-MF mEndo (SM9222B), Total Coliform – Colilert (SM9223 P/A), E. Coli. – Colilert (SM9223 P/A), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D))

Wastewater/Non-Potable Water (Inorganic Parameters: Color, pH, Conductivity, Acidity, Alkalinity, Chloride, Total Residual Chlorine, Fluoride, Total Hardness, Silica, Sulfate, Sulfide, Ammonia, Kjeldahl Nitrogen, Nitrate, Nitrite, O-Phosphate, Total Phosphorus, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Dissolved Solids, Total Suspended Solids (non-filterable), BOD, CBOD, COD, TOC, Total Cyanide, Phenolics, Foaming Agents (MBAS), Bromide, Oil and Grease. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, 2,4-D, 2,4,5-T, 2,4,5-TP(Silvex), Acid Extractables (Phenols), Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, Polynuclear Aromatic Hydrocarbons, Haloethers, Chlorinated Hydrocarbons, Volatile Organics, TPH (HEM/SGT), Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH. Microbiology Parameters: Total Coliform – MF mEndo (SM9222B), Total Coliform – MTF (SM9221B), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform – A-1 Broth (SM9221E).)

Solid Waste/Soil (Inorganic Parameters: pH, Sulfide, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Tin, Vanadium, Zinc, Total Cyanide, Ignitability, Phenolics, Corrosivity, TCLP Leach (1311), SPLP Leach (1312 metals only), Reactivity. Organic Parameters: PCBs, PCBs in Oil, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH, Dicamba, 2,4-D, 2,4,5-T, 2,4,5-TP(Silvex), Volatile Organics, Acid Extractables (Phenols), 3,3'-Dichlorobenzidine, Phthalates, Nitrosamines, Nitroaromatics & Cyclic Ketones, PAHs, Haloethers, Chlorinated Hydrocarbons.)

Maine Department of Human Services Certificate/Lab ID: 2009024.

Drinking Water (Inorganic Parameters: SM9215B, 9222D, 9223B, EPA 180.1, 353.2, SM2130B, 2320B, 2540C, 4500Cl-D, 4500CN-C, 4500CN-E, 4500F-C, 4500H+B, 4500NO3-F, EPA 200.7, EPA 200.8, 245.1, EPA 300.0. Organic Parameters: 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 350.1, 351.1, 353.2, 410.4, 420.1, SM2320B, 2510B, 2540C, 2540D, 426C, 4500Cl-D, 4500Cl-E, 4500CN-C, 4500CN-E, 4500F-B, 4500F-C, 4500H+B, 4500Norg-B, 4500Norg-C, 4500NH3-B, 4500NH3-G, 4500NH3-H, 4500NO3-F, 4500P-B, 4500P-E, 5210B, 5220D, 5310C, 9010B, 9040B, 9030B, 7470A, 7196A, 2340B, EPA 200.7, 6010, 200.8, 6020, 245.1, 1311, 1312, 3005A, Enterolert, 9223D, 9222D. Organic Parameters: 608, 8081, 8082, 8330, 8151A, 624, 8260, 3510C, 3630C, 5030B, ME-DRO, ME-GRO, MA-EPH, MA-VPH.)

Solid Waste/Soil (Inorganic Parameters: 9010B, 9012A, 9014A, 9040B, 9045C, 6010B, 7471A, 7196A, 9050A, 1010, 1030, 9065, 1311, 1312, 3005A, 3050B. Organic Parameters: ME-DRO, ME-GRO, MA-EPH, MA-VPH, 8260B, 8270C, 8330, 8151A, 8081A, 8082, 3540C, 3546, 3580A, 3630C, 5030B, 5035.)

Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA086.

Drinking Water (Inorganic Parameters: (EPA 200.8 for: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl) (EPA 200.7 for: Ba,Be,Ca,Cd,Cr,Cu,Na,Ni) 245.1, (300.0 for: Nitrate-N, Fluoride, Sulfate); (EPA 353.2 for: Nitrate-N, Nitrite-N); (SM4500NO3-F for: Nitrate-N and Nitrite-N); 4500F-C, 4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, 2320B, SM2540C, SM4500H-B. Organic Parameters: (EPA 524.2 for: Trihalomethanes, Volatile Organics); (504.1 for: 1,2-Dibromoethane, 1,2-Dibromo-3-Chloropropane), EPA 332. Microbiology Parameters: SM9215B; ENZ. SUB. SM9223; ColilertQT SM9223B; MF-SM9222D.)

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for: *Non-Potable Water* (Inorganic Parameters:, (EPA 200.8 for: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn); (EPA 200.7 for: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn); 245.1, SM4500H,B, EPA 120.1,

SM2510B, 2540C, 2340B, 2320B, 4500CL-E, 4500F-BC, 426C, SM4500NH3-BH, (EPA 350.1 for: Ammonia-N), LACHAT 10-107-06-1-B for Ammonia-N, SM4500NO3-F, 353.2 for Nitrate-N, SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, 4500P-B,E, 5220D, EPA 410.4, SM 5210B, 5310C, 4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.

Organic Parameters: (EPA 624 for Volatile Halocarbons, Volatile Aromatics),(608 for: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs-Water), (EPA 625 for SVOC Acid Extractables and SVOC Base/Neutral Extractables), 600/4-81-045-PCB-Oil. Microbiology Parameters: (ColilertQT SM9223B;Enterolert-QT: SM9222D-MF.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 200307. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: SM 9222B, 9223B, 9215B, EPA 200.7, 200.8, 245.2, 300.0, SM4500CN-E, 4500H+B, 4500NO3-F, 2320B, 2510B, 2540C, 4500F-C, 5310C, 2120B, EPA 332.0. Organic Parameters: 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM9222D, 9221B, 9222B, 9221E-EC, EPA 3005A, 200.7, 200.8, 245.1, 245.2, SW-846 6010B, 6020, 7196A, 7470A, SM3500-CR-D, EPA 120.1, 300.0, 350.1, 350.2, 351.1, 353.2, 410.4, 420.1, 1664A, SW-846 9010, 9030, 9040B, SM426C, SM2120B, 2310B, 2320B, 2540B, 2540D, 4500H+B, 4500CL-E, 4500CN-E, 4500NH3-H, 4500NO3-F, 4500NO2-B, 4500P-E, 4500-S2-D, 5210B, 5220D, 2510B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D. Organic Parameters: SW-846 3510C, 3630C, 5030B, 8260B, 8270C, 8330, EPA 624, 625, 608, SW-846 8082, 8081A, 8151A.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 6010B, 7196A, 7471A, 1010, 1030, 9010, 9012A, 9014, 9030B, 9040B, 9045C, 9050C, 9065,1311, 1312, 3005A, 3050B. Organic Parameters: SW-846 3540C, 3546, 3550B, 3580A, 3630C, 5030B, 5035, 8260B, 8270C, 8330, 8151A, 8015B, 8082, 8081A.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA935. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: SM9222B, 9221E, 9223B, 9215B, 4500CN-CE, 4500NO3-F, 4500F-C, EPA 300.0, 200.7, 200.8, 245.2, 2540C, SM2120B, 2320B, 2510B, 5310C, SM4500H-B. Organic Parameters: EPA 332, 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM5210B, EPA 410.4, SM5220D, 4500CI-E, EPA 300.0, SM2120B, SM4500F-BC, EPA 200.7, 351.1, LACHAT 10-107-06-2-D, EPA 353.2, SM4500NO3-F, 4500NO2-B, EPA 1664A, SM5310B, C or D, 4500-PE, EPA 420.1, SM510ABC, SM4500P-B5+E, 2540B, 2540C, 2540D, EPA 120.1, SM2510B, SM15 426C, 9222D, 9221B, 9221C, 9221E, 9222B, 9215B, 2310B, 2320B, 4500NH3-H, 4500-S D, EPA 350.1, 350.2, SW-846 1312, 6020, 6020A, 7470A, 5540C, 4500H-B, EPA 200.8, SM3500Cr-D, 4500CN-CE, EPA 245.1, 245.2, SW-846 9040B, 3005A, 3015, EPA 6010B, 6010C, 7196A, 3060A, SW-846 9010B, 9030B. Organic Parameters: SW-846 8260B, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3510C, EPA 608, 624, 625, SW-846 3630C, 5030B, 8081A, 8081B, 8082, 8082A, 8151A, 8330, NJ OQA-QAM-025 Rev.7, NJ EPH.)

Solid & Chemical Materials (Inorganic Parameters: SW-846, 6010B, 6010C, 7196A, 3060A, 9010B, 9030B, 1010, 1030, 1311, 1312, 3005A, 3050B, 7471A, 7471B, 9014, 9012A, 9040B, 9045C, 9050A, 9065. Organic Parameters: SW-846 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 8260B, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3540C, 3545, 3546, 3550B, 3580A, 3630C, 5030B, 5035L, 5035H, NJ OQA-QAM-025 Rev.7, NJ EPH.)

New York Department of Health Certificate/Lab ID: 11148. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: SM9223B, 9222B, 9215B, EPA 200.8, 200.7, 245.2, SM5310C, EPA 332.0, SM2320B, EPA 300.0, SM2120B, 4500CN-E, 4500F-C, 4500H-B, 4500NO3-F, 2540C, SM 2510B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: SM9221E, 9222D, 9221B, 9222B, 9215B, 5210B, 5310C, EPA 410.4, SM5220D, 2310B-4a, 2320B, EPA 200.7, 300.0, SM4500CL-E, 4500F-C, SM15 426C, EPA 350.1, SM4500NH3-BH, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, LACHAT 10-107-04-1-C, SM4500-NO3-F, 4500-NO2-B, 4500P-E, 2540C, 2540B, 2540D, EPA 200.8, EPA 6010B, 6020, EPA 7196A, SM3500Cr-D, EPA 245.1, 245.2, 7470A, SM2120B, LACHAT 10-204-00-1-A, EPA 9040B, SM4500-HB, EPA 1664A, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, SM4500S-D, SM5540C, EPA 3005A, 9010B, 9030B.. Organic Parameters: EPA 624, 8260B, 8270C, 625, 608, 8081A, 8151A, 8330, 8082, EPA 3510C, 5030B.)

Solid & Hazardous Waste (Inorganic Parameters: 1010, 1030, EPA 6010B, 7196A, 7471A, 9012A, 9014, 9040B, 9045C, 9065, 9050, EPA 1311, 1312, 3005A, 3050B, 9010B, 9030B. Organic Parameters: EPA 8260B, 8270C, 8015B, 8081A, 8151A, 8330, 8082, 3540C, 3545, 3546, 3580, 5030B, 5035.)

North Carolina Department of the Environment and Natural Resources Certificate/Lab ID : 666. Organic Parameters: MA-EPH, MA-VPH.

Pennsylvania Department of Environmental Protection Certificate/Lab ID : 68-03671. **NELAP Accredited.**
Drinking Water (Organic Parameters: EPA 524.2, 504.1)

Non-Potable Water (Inorganic Parameters: EPA 1312, 200.7, 410.4, 1664A, SM2540D, 5210B, 5220D, 4500-P, BE. Organic Parameters: EPA 3510C, 3005A, 3630C, 5030B, 625, 624, 608, 8081A, 8081B, 8082, 802A, 8151A, 8260B, 8270C, 8270D, 8330)

Solid & Hazardous Waste (Inorganic Parameters: EPA 350.1, 1010, 1030, 1311, 1312, 3050B, 3060A, 6010B, 6010C, 7196A, 7471A, 9010B, 9012A, 9014, 9040B, 9045C, 9050, 9065, SM 4500NH3-H. Organic Parameters: 3540C, 3546, 3580A, 3630C, 5035, 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8260B, 8270C, 8270D, 8330)

Rhode Island Department of Health Certificate/Lab ID: LAO00065. **NELAP Accredited via NY-DOH.**

Refer to MA-DEP Certificate for Potable and Non-Potable Water.

Refer to NJ-DEP Certificate for Potable and Non-Potable Water.

Texas Commission on Environmental Quality Certificate/Lab ID: T104704476-09-1. **NELAP Accredited.**

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664, 200.7, 200.8, 245.1, 245.2, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 6010, 6020, 7196, 7470, 9040, SM 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CL-E, 4500CN-E, 4500F-C, 4500H+B, 4500NH3-H, 4500NO2B, 4500P-E, 4500 S²⁻ D, 510C, 5210B, 5220D, 5310C, 5540C. Organic Parameters: EPA 608, 624, 625, 8081, 8082, 8151, 8260, 8270, 8330.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 1312, 9012, 9014, 9040, 9045, 9050, 9065.)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID: 460195. **NELAP Accredited.**

Non-Potable Water (Inorganic Parameters: EPA 3005A, 3015, 1312, 6010B, 6010C, SM4500S-D, SM4500-CN-CE, Lachat 10-204-00-1-X. Organic Parameters: EPA 8260B)

Solid & Hazardous Waste (Inorganic Parameters: EPA 3050B, 1311, 1312, 6010B, 6010C, 9030B, 9010B, 9012A, 9014. Organic Parameters: EPA 5035, 5030B, 8260B.)

Department of Defense, L-A-B Certificate/Lab ID: L2217.

Drinking Water (Inorganic Parameters: SM 4500H-B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: EPA 200.7, 200.8, 6010B, 6020, 245.1, 245.2, 7470A, 9040B, 300.0, 332.0, 6860, 353.2, 410.4, 9060, 1664A, SM 4500CN-E, 4500H-B, 4500NO3-F, 5220D, 5310C, 2320B, 2540C, 3005A, 3015, 9010B, 9056. Organic Parameters: EPA 8260B, 8270C, 8330A, 625, 8082, 8081A, 3510C, 5030B, MassDEP EPH, MassDEP VPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 200.7, 6010B, 7471A, 9010, 9012A, 6860, 1311, 1312, 3050B, 7196A, 9010B, 3500-CR-D, 4500CN-CE, 2540G, Organic Parameters: EPA 8260B, 8270C, 8330A/B-prep, 8082, 8081A, 3540C, 3546, 3580A, 5035A, MassDEP EPH, MassDEP VPH.)

The following analytes are not included in our current NELAP/TNI Scope of Accreditation:

EPA 8260B: Freon-113, 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene. **EPA 8330A**: PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT. **EPA 8270C**: Methyl naphthalene, Dimethyl naphthalene, Total Methyl naphthalenes, Total Dimethyl naphthalenes, 1,4-Diphenylhydrazine (Azobenzene). **EPA 625**: 4-Chloroaniline, 4-Methylphenol. Total Phosphorus in a soil matrix, Chloride in a soil matrix, TKN in a soil matrix, NO₂ in a soil matrix, NO₃ in a soil matrix, SO₄ in a soil matrix.

CHAIN OF CUSTODY RECORD

ALPHA Job # L1203636

H&A FILE NO. 06318-570
PROJECT NAME Emc Energy Int. Inc.
H&A CONTACT C. Worley

LABORATORY ADDRESS Quincy
CONTACT 495 TCH CMC

DELIVERY DATE 3/2/12
TURNAROUND TIME 570
PROJECT MANAGER C. Worley

Phone (617) 886-2400
Fax (617) 886-7600
Page 1 of 1

Sample No.	Date	Time	Depth	Type	Analysis Requested	Number of Containers	Comments (special instructions, precautions, additional method numbers, etc.)	
HA-206 S1	3/2	11:25	0-0.5	Soil	VOA ABNs PAH only MCP Metals Pesticide PCBs VPH Full Suite C-ranges only EPH Full Suite C-ranges only TPH (specify) TCLP (specify) Reactivity Ignitability Corrosivity	1	① PCB's bag Soxhlet Extract 3540 C	
HA-206 S2		11:35	0.0-2.0			1	② Hold pending analysis of other samples - Contact Bob Worley for info	
HA-206 S3		11:40	2-3			1		
HA-206 S4		11:45	3-5			1		
HA-206 S5		11:50	5-7			1		
HA-207 S1		11:55	0-0.5			1		
HA-207 S2		12:00	1-2			1		
HA-207 S3		12:10	2-3			1		
HA-207 S4		12:20	3-5			1		
HA-207 S5		12:30	5-7			1		
Sampled and Relinquished by Sign <u>Michael M. Laughton</u> Print <u>Michael M. Laughton</u> Firm <u>H&A</u> Date <u>3/2/12</u> Time <u>15:15</u>					LIQUID			Sampling Comments
Relinquished by Sign <u>Michael M. Laughton</u> Print <u>Michael M. Laughton</u> Firm <u>H&A</u> Date <u>3/2/12</u> Time <u>15:15</u>					SOLID			
Sign <u>Michael M. Laughton</u> Print <u>Michael M. Laughton</u> Firm <u>H&A</u> Date <u>3/2/12</u> Time <u>15:30</u>					PRESERVATION KEY			
Sign <u>Michael M. Laughton</u> Print <u>Michael M. Laughton</u> Firm <u>H&A</u> Date <u>3/2/12</u> Time <u>15:30</u>					EVIDENCE			



ANALYTICAL REPORT

Lab Number:	L1203638
Client:	Haley & Aldrich, Inc. 465 Medford Street, Suite 2200 Charlestown, MA 02129-1400
ATTN:	Cole Worthy
Phone:	(617) 886-7341
Project Name:	FMR. ENERGY INT PARCEL
Project Number:	06318-520
Report Date:	03/08/12

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NY (11148), CT (PH-0574), NH (2003), NJ NELAP (MA935), RI (LAO00065), ME (MA00086), PA (68-03671), USDA (Permit #P-330-11-00240), NC (666), TX (T104704476), DOD (L2217), US Army Corps of Engineers.

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com



Project Name: FMR. ENERGY INT PARCEL
Project Number: 06318-520

Lab Number: L1203638
Report Date: 03/08/12

Alpha Sample ID	Client ID	Sample Location	Collection Date/Time
L1203638-01	HA-208 S1	495 TECH CTR	03/02/12 12:40
L1203638-02	HA-208 S2	495 TECH CTR	03/02/12 12:45
L1203638-03	HA-208 S3	495 TECH CTR	03/02/12 12:55
L1203638-04	HA-208 S4	495 TECH CTR	03/02/12 13:05
L1203638-05	HA-208 S5	495 TECH CTR	03/02/12 13:15

Project Name: FMR. ENERGY INT PARCEL

Lab Number: L1203638

Project Number: 06318-520

Report Date: 03/08/12

MADEP MCP Response Action Analytical Report Certification

This form provides certifications for all samples performed by MCP methods. Please refer to the Sample Results and Container Information sections of this report for specification of MCP methods used for each analysis. The following questions pertain only to MCP Analytical Methods.

An affirmative response to questions A through F is required for "Presumptive Certainty" status		
A	Were all samples received in a condition consistent with those described on the Chain-of-Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding times?	YES
B	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?	YES
C	Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?	YES
D	Does the laboratory report comply with all the reporting requirements specified in CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data?"	YES
E a.	VPH, EPH, and APH Methods only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications).	N/A
E b.	APH and TO-15 Methods only: Was the complete analyte list reported for each method?	N/A
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all "No" responses to Questions A through E)?	YES
A response to questions G, H and I is required for "Presumptive Certainty" status		
G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	NO
H	Were all QC performance standards specified in the CAM protocol(s) achieved?	NO
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	YES
For any questions answered "No", please refer to the case narrative section on the following page(s).		

Please note that sample matrix information is located in the Sample Results section of this report.



Project Name: FMR. ENERGY INT PARCEL
Project Number: 06318-520

Lab Number: L1203638
Report Date: 03/08/12

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Performance criteria for CAM and RCP methods allow for some LCS compound failures to occur and still be within method compliance. In these instances, the specific failures are not narrated but are noted in the associated QC table. This information is also incorporated in the Data Usability format for our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

Please see the associated ADEX data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

Please contact Client Services at 800-624-9220 with any questions.

MCP Related Narratives

PCBs

L1203638-01 has elevated detection limits due to the dilution required by the elevated concentrations of target compounds in the sample.

In reference to question G:

L1203638-01: One or more of the target analytes did not achieve the requested CAM reporting limits.

In reference to question H:

The surrogate recoveries for L1203638-01 are below the acceptance criteria for 2,4,5,6-Tetrachloro-m-xylene and Decachlorobiphenyl (all at 0%) due to the dilution required to quantitate the sample. Re-extraction was not

Project Name: FMR. ENERGY INT PARCEL
Project Number: 06318-520

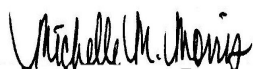
Lab Number: L1203638
Report Date: 03/08/12

Case Narrative (continued)

required; therefore, the results of the original analysis are reported.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:



Michelle M. Morris

Title: Technical Director/Representative

Date: 03/08/12

ORGANICS

PCBS

Project Name: FMR. ENERGY INT PARCEL**Lab Number:** L1203638**Project Number:** 06318-520**Report Date:** 03/08/12**SAMPLE RESULTS**

Lab ID: L1203638-01 **D**
Client ID: HA-208 S1
Sample Location: 495 TECH CTR
Matrix: Soil
Analytical Method: 97,8082
Analytical Date: 03/07/12 20:45
Analyst: KB
Percent Solids: 87%

Date Collected: 03/02/12 12:40
Date Received: 03/02/12
Field Prep: Not Specified
Extraction Method: EPA 3540C
Extraction Date: 03/03/12 01:35
Cleanup Method1: EPA 3665A
Cleanup Date1: 03/05/12
Cleanup Method2: EPA 3660B
Cleanup Date2: 03/05/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Polychlorinated Biphenyls - Westborough Lab						
Aroclor 1016	ND		ug/kg	1830	--	50
Aroclor 1221	ND		ug/kg	1830	--	50
Aroclor 1232	ND		ug/kg	1830	--	50
Aroclor 1242	ND		ug/kg	1830	--	50
Aroclor 1254	18900		ug/kg	1830	--	50
Aroclor 1262	ND		ug/kg	1830	--	50
Aroclor 1268	ND		ug/kg	1830	--	50

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	0	Q	30-150
Decachlorobiphenyl	0	Q	30-150
2,4,5,6-Tetrachloro-m-xylene	0	Q	30-150
Decachlorobiphenyl	0	Q	30-150

Project Name: FMR. ENERGY INT PARCEL**Lab Number:** L1203638**Project Number:** 06318-520**Report Date:** 03/08/12**SAMPLE RESULTS**

Lab ID: L1203638-01 **D**
Client ID: HA-208 S1
Sample Location: 495 TECH CTR
Matrix: Soil
Analytical Method: 97,8082
Analytical Date: 03/07/12 20:45
Analyst: KB
Percent Solids: 87%

Date Collected: 03/02/12 12:40
Date Received: 03/02/12
Field Prep: Not Specified
Extraction Method: EPA 3540C
Extraction Date: 03/03/12 01:35
Cleanup Method1: EPA 3665A
Cleanup Date1: 03/05/12
Cleanup Method2: EPA 3660B
Cleanup Date2: 03/05/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Polychlorinated Biphenyls - Westborough Lab						
Aroclor 1248	14000		ug/kg	1830	--	50
Aroclor 1260	5600		ug/kg	1830	--	50

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	0	Q	30-150
Decachlorobiphenyl	0	Q	30-150
2,4,5,6-Tetrachloro-m-xylene	0	Q	30-150
Decachlorobiphenyl	0	Q	30-150

Project Name: FMR. ENERGY INT PARCEL**Lab Number:** L1203638**Project Number:** 06318-520**Report Date:** 03/08/12**SAMPLE RESULTS**

Lab ID: L1203638-02
Client ID: HA-208 S2
Sample Location: 495 TECH CTR
Matrix: Soil
Analytical Method: 97,8082
Analytical Date: 03/05/12 17:26
Analyst: KB
Percent Solids: 83%

Date Collected: 03/02/12 12:45
Date Received: 03/02/12
Field Prep: Not Specified
Extraction Method: EPA 3540C
Extraction Date: 03/03/12 01:35
Cleanup Method1: EPA 3665A
Cleanup Date1: 03/05/12
Cleanup Method2: EPA 3660B
Cleanup Date2: 03/05/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Polychlorinated Biphenyls - Westborough Lab						
Aroclor 1016	ND		ug/kg	39.8	--	1
Aroclor 1221	ND		ug/kg	39.8	--	1
Aroclor 1232	ND		ug/kg	39.8	--	1
Aroclor 1242	ND		ug/kg	39.8	--	1
Aroclor 1248	ND		ug/kg	39.8	--	1
Aroclor 1254	ND		ug/kg	39.8	--	1
Aroclor 1260	ND		ug/kg	39.8	--	1
Aroclor 1262	ND		ug/kg	39.8	--	1
Aroclor 1268	ND		ug/kg	39.8	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	60		30-150
Decachlorobiphenyl	64		30-150
2,4,5,6-Tetrachloro-m-xylene	60		30-150
Decachlorobiphenyl	80		30-150

Project Name: FMR. ENERGY INT PARCEL**Lab Number:** L1203638**Project Number:** 06318-520**Report Date:** 03/08/12**SAMPLE RESULTS**

Lab ID: L1203638-03
Client ID: HA-208 S3
Sample Location: 495 TECH CTR
Matrix: Soil
Analytical Method: 97,8082
Analytical Date: 03/05/12 14:50
Analyst: KB
Percent Solids: 60%

Date Collected: 03/02/12 12:55
Date Received: 03/02/12
Field Prep: Not Specified
Extraction Method: EPA 3540C
Extraction Date: 03/03/12 00:20
Cleanup Method1: EPA 3665A
Cleanup Date1: 03/05/12
Cleanup Method2: EPA 3660B
Cleanup Date2: 03/05/12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Polychlorinated Biphenyls - Westborough Lab						
Aroclor 1016	ND		ug/kg	53.9	--	1
Aroclor 1221	ND		ug/kg	53.9	--	1
Aroclor 1232	ND		ug/kg	53.9	--	1
Aroclor 1242	ND		ug/kg	53.9	--	1
Aroclor 1248	ND		ug/kg	53.9	--	1
Aroclor 1254	ND		ug/kg	53.9	--	1
Aroclor 1260	ND		ug/kg	53.9	--	1
Aroclor 1262	ND		ug/kg	53.9	--	1
Aroclor 1268	ND		ug/kg	53.9	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	63		30-150
Decachlorobiphenyl	59		30-150
2,4,5,6-Tetrachloro-m-xylene	69		30-150
Decachlorobiphenyl	67		30-150

Project Name: FMR. ENERGY INT PARCEL**Lab Number:** L1203638**Project Number:** 06318-520**Report Date:** 03/08/12

Method Blank Analysis
Batch Quality Control

Analytical Method: 97,8082
 Analytical Date: 03/05/12 16:06
 Analyst: KB

Extraction Method: EPA 3540C
 Extraction Date: 03/03/12 00:20
 Cleanup Method1: EPA 3665A
 Cleanup Date1: 03/05/12
 Cleanup Method2: EPA 3660B
 Cleanup Date2: 03/05/12

Parameter	Result	Qualifier	Units	RL	MDL
MCP Polychlorinated Biphenyls - Westborough Lab for sample(s): 03 Batch: WG521225-1					
Aroclor 1016	ND		ug/kg	33.3	--
Aroclor 1221	ND		ug/kg	33.3	--
Aroclor 1232	ND		ug/kg	33.3	--
Aroclor 1242	ND		ug/kg	33.3	--
Aroclor 1248	ND		ug/kg	33.3	--
Aroclor 1254	ND		ug/kg	33.3	--
Aroclor 1260	ND		ug/kg	33.3	--
Aroclor 1262	ND		ug/kg	33.3	--
Aroclor 1268	ND		ug/kg	33.3	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	89		30-150
Decachlorobiphenyl	67		30-150
2,4,5,6-Tetrachloro-m-xylene	90		30-150
Decachlorobiphenyl	74		30-150

Project Name: FMR. ENERGY INT PARCEL**Lab Number:** L1203638**Project Number:** 06318-520**Report Date:** 03/08/12

Method Blank Analysis
Batch Quality Control

Analytical Method: 97,8082
 Analytical Date: 03/05/12 16:12
 Analyst: KB

Extraction Method: EPA 3540C
 Extraction Date: 03/03/12 01:35
 Cleanup Method1: EPA 3665A
 Cleanup Date1: 03/05/12
 Cleanup Method2: EPA 3660B
 Cleanup Date2: 03/05/12

Parameter	Result	Qualifier	Units	RL	MDL
MCP Polychlorinated Biphenyls - Westborough Lab for sample(s): 01-02 Batch: WG521226-1					
Aroclor 1016	ND		ug/kg	31.5	--
Aroclor 1221	ND		ug/kg	31.5	--
Aroclor 1232	ND		ug/kg	31.5	--
Aroclor 1242	ND		ug/kg	31.5	--
Aroclor 1248	ND		ug/kg	31.5	--
Aroclor 1254	ND		ug/kg	31.5	--
Aroclor 1260	ND		ug/kg	31.5	--
Aroclor 1262	ND		ug/kg	31.5	--
Aroclor 1268	ND		ug/kg	31.5	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	66		30-150
Decachlorobiphenyl	74		30-150
2,4,5,6-Tetrachloro-m-xylene	68		30-150
Decachlorobiphenyl	82		30-150

Lab Control Sample Analysis

Batch Quality Control

Project Name: FMR. ENERGY INT PARCEL

Lab Number: L1203638

Project Number: 06318-520

Report Date: 03/08/12

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Polychlorinated Biphenyls - Westborough Lab Associated sample(s): 03 Batch: WG521225-2 WG521225-3								
Aroclor 1016	75		77		40-140	3		30
Aroclor 1260	71		72		40-140	1		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	85		91		30-150
Decachlorobiphenyl	71		79		30-150
2,4,5,6-Tetrachloro-m-xylene	79		85		30-150
Decachlorobiphenyl	73		81		30-150

MCP Polychlorinated Biphenyls - Westborough Lab Associated sample(s): 01-02 Batch: WG521226-2 WG521226-3								
Aroclor 1016	49		57		40-140	15		30
Aroclor 1260	50		55		40-140	10		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	69		77		30-150
Decachlorobiphenyl	70		71		30-150
2,4,5,6-Tetrachloro-m-xylene	70		73		30-150
Decachlorobiphenyl	79		78		30-150

INORGANICS & MISCELLANEOUS

Project Name: FMR. ENERGY INT PARCEL**Project Number:** 06318-520**Lab Number:** L1203638**Report Date:** 03/08/12**SAMPLE RESULTS****Lab ID:** L1203638-01**Client ID:** HA-208 S1**Sample Location:** 495 TECH CTR**Matrix:** Soil**Date Collected:** 03/02/12 12:40**Date Received:** 03/02/12**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	87		%	0.10	NA	1	-	03/05/12 16:18	30,2540G	SD



Project Name: FMR. ENERGY INT PARCEL**Lab Number:** L1203638**Project Number:** 06318-520**Report Date:** 03/08/12**SAMPLE RESULTS****Lab ID:** L1203638-02**Date Collected:** 03/02/12 12:45**Client ID:** HA-208 S2**Date Received:** 03/02/12**Sample Location:** 495 TECH CTR**Field Prep:** Not Specified**Matrix:** Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	83		%	0.10	NA	1	-	03/05/12 16:18	30,2540G	SD



Project Name: FMR. ENERGY INT PARCEL

Lab Number: L1203638

Project Number: 06318-520

Report Date: 03/08/12

SAMPLE RESULTS

Lab ID: L1203638-03

Date Collected: 03/02/12 12:55

Client ID: HA-208 S3

Date Received: 03/02/12

Sample Location: 495 TECH CTR

Field Prep: Not Specified

Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	60		%	0.10	NA	1	-	03/05/12 16:18	30,2540G	SD



Lab Duplicate Analysis
Batch Quality Control**Project Name:** FMR. ENERGY INT PARCEL**Project Number:** 06318-520**Lab Number:** L1203638**Report Date:** 03/08/12

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-03 QC Batch ID: WG521484-1 QC Sample: L1203555-02 Client ID: DUP Sample						
Solids, Total	85	83	%	2		20

Project Name: FMR. ENERGY INT PARCEL**Project Number:** 06318-520**Lab Number:** L1203638**Report Date:** 03/08/12**Sample Receipt and Container Information**

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA**Cooler Information Custody Seal****Cooler**

A Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1203638-01A	Amber 120ml unpreserved	A	N/A	2.8	Y	Absent	TS(7),MCP-8082-10-3540C(365)
L1203638-02A	Amber 120ml unpreserved	A	N/A	2.8	Y	Absent	TS(7),MCP-8082-10-3540C(365)
L1203638-03A	Amber 120ml unpreserved	A	N/A	2.8	Y	Absent	TS(7),MCP-8082-10-3540C(365)
L1203638-04A	Amber 120ml unpreserved	A	N/A	2.8	Y	Absent	HOLD(14)
L1203638-05A	Amber 120ml unpreserved	A	N/A	2.8	Y	Absent	HOLD(14)

Container Comments

L1203638-04A

L1203638-05A

*Values in parentheses indicate holding time in days

Project Name: FMR. ENERGY INT PARCEL
Project Number: 06318-520

Lab Number: L1203638
Report Date: 03/08/12

GLOSSARY

Acronyms

EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NI	- Not Ignitable.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

Footnotes

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

A	- Spectra identified as "Aldol Condensation Product".
B	- The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than five times (5x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit.
C	- Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
D	- Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
E	- Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
G	- The concentration may be biased high due to matrix interferences (i.e., co-elution) with non-target compound(s). The result should be considered estimated.
H	- The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
I	- The RPD between the results for the two columns exceeds the method-specified criteria; however, the lower value has been reported due to obvious interference.
M	- Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
NJ	- Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

Report Format: Data Usability Report



Project Name: FMR. ENERGY INT PARCEL
Project Number: 06318-520

Lab Number: L1203638
Report Date: 03/08/12

Data Qualifiers

- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- J** - Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- ND** - Not detected at the reporting limit (RL) for the sample.

Project Name: FMR. ENERGY INT PARCEL
Project Number: 06318-520

Lab Number: L1203638
Report Date: 03/08/12

REFERENCES

- 30 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.
- 97 EPA Test Methods (SW-846) with QC Requirements & Performance Standards for the Analysis of EPA SW-846 Methods under the Massachusetts Contingency Plan, WSC-CAM-IIA, IIB, IIIA, IIIB, IIIC, IIID, VA, VB, VC, VIA, VIB, VIIIA and VIIIB, July 2010.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Certificate/Approval Program Summary

Last revised January 30, 2012 - Westboro Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0574. **NELAP Accredited Solid Waste/Soil.**

Drinking Water (Inorganic Parameters: Color, pH, Turbidity, Conductivity, Alkalinity, Chloride, Free Residual Chlorine, Fluoride, Calcium Hardness, Sulfate, Nitrate, Nitrite, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Vanadium, Zinc, Total Dissolved Solids, Total Organic Carbon, Total Cyanide, Perchlorate. Organic Parameters: Volatile Organics 524.2, Total Trihalomethanes 524.2, 1,2-Dibromo-3-chloropropane (DBCP), Ethylene Dibromide (EDB), 1,4-Dioxane (Mod 8270). Microbiology Parameters: Total Coliform-MF mEndo (SM9222B), Total Coliform – Colilert (SM9223 P/A), E. Coli. – Colilert (SM9223 P/A), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D))

Wastewater/Non-Potable Water (Inorganic Parameters: Color, pH, Conductivity, Acidity, Alkalinity, Chloride, Total Residual Chlorine, Fluoride, Total Hardness, Silica, Sulfate, Sulfide, Ammonia, Kjeldahl Nitrogen, Nitrate, Nitrite, O-Phosphate, Total Phosphorus, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Dissolved Solids, Total Suspended Solids (non-filterable), BOD, CBOD, COD, TOC, Total Cyanide, Phenolics, Foaming Agents (MBAS), Bromide, Oil and Grease. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, 2,4-D, 2,4,5-T, 2,4,5-TP(Silvex), Acid Extractables (Phenols), Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, Polynuclear Aromatic Hydrocarbons, Haloethers, Chlorinated Hydrocarbons, Volatile Organics, TPH (HEM/SGT), Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH. Microbiology Parameters: Total Coliform – MF mEndo (SM9222B), Total Coliform – MTF (SM9221B), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform – A-1 Broth (SM9221E).)

Solid Waste/Soil (Inorganic Parameters: pH, Sulfide, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Tin, Vanadium, Zinc, Total Cyanide, Ignitability, Phenolics, Corrosivity, TCLP Leach (1311), SPLP Leach (1312 metals only), Reactivity. Organic Parameters: PCBs, PCBs in Oil, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH, Dicamba, 2,4-D, 2,4,5-T, 2,4,5-TP(Silvex), Volatile Organics, Acid Extractables (Phenols), 3,3'-Dichlorobenzidine, Phthalates, Nitrosamines, Nitroaromatics & Cyclic Ketones, PAHs, Haloethers, Chlorinated Hydrocarbons.)

Maine Department of Human Services Certificate/Lab ID: 2009024.

Drinking Water (Inorganic Parameters: SM9215B, 9222D, 9223B, EPA 180.1, 353.2, SM2130B, 2320B, 2540C, 4500Cl-D, 4500CN-C, 4500CN-E, 4500F-C, 4500H+B, 4500NO3-F, EPA 200.7, EPA 200.8, 245.1, EPA 300.0. Organic Parameters: 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 350.1, 351.1, 353.2, 410.4, 420.1, SM2320B, 2510B, 2540C, 2540D, 426C, 4500Cl-D, 4500Cl-E, 4500CN-C, 4500CN-E, 4500F-B, 4500F-C, 4500H+B, 4500Norg-B, 4500Norg-C, 4500NH3-B, 4500NH3-G, 4500NH3-H, 4500NO3-F, 4500P-B, 4500P-E, 5210B, 5220D, 5310C, 9010B, 9040B, 9030B, 7470A, 7196A, 2340B, EPA 200.7, 6010, 200.8, 6020, 245.1, 1311, 1312, 3005A, Enterolert, 9223D, 9222D. Organic Parameters: 608, 8081, 8082, 8330, 8151A, 624, 8260, 3510C, 3630C, 5030B, ME-DRO, ME-GRO, MA-EPH, MA-VPH.)

Solid Waste/Soil (Inorganic Parameters: 9010B, 9012A, 9014A, 9040B, 9045C, 6010B, 7471A, 7196A, 9050A, 1010, 1030, 9065, 1311, 1312, 3005A, 3050B. Organic Parameters: ME-DRO, ME-GRO, MA-EPH, MA-VPH, 8260B, 8270C, 8330, 8151A, 8081A, 8082, 3540C, 3546, 3580A, 3630C, 5030B, 5035.)

Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA086.

Drinking Water (Inorganic Parameters: (EPA 200.8 for: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl) (EPA 200.7 for: Ba,Be,Ca,Cd,Cr,Cu,Na,Ni) 245.1, (300.0 for: Nitrate-N, Fluoride, Sulfate); (EPA 353.2 for: Nitrate-N, Nitrite-N); (SM4500NO3-F for: Nitrate-N and Nitrite-N); 4500F-C, 4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, 2320B, SM2540C, SM4500H-B. Organic Parameters: (EPA 524.2 for: Trihalomethanes, Volatile Organics); (504.1 for: 1,2-Dibromoethane, 1,2-Dibromo-3-Chloropropane), EPA 332. Microbiology Parameters: SM9215B; ENZ. SUB. SM9223; ColilertQT SM9223B; MF-SM9222D.)

SM2510B, 2540C, 2340B, 2320B, 4500CL-E, 4500F-BC, 426C, SM4500NH3-BH, (EPA 350.1 for: Ammonia-N), LACHAT 10-107-06-1-B for Ammonia-N, SM4500NO3-F, 353.2 for Nitrate-N, SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, 4500P-B,E, 5220D, EPA 410.4, SM 5210B, 5310C, 4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.

Organic Parameters: (EPA 624 for Volatile Halocarbons, Volatile Aromatics),(608 for: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs-Water), (EPA 625 for SVOC Acid Extractables and SVOC Base/Neutral Extractables), 600/4-81-045-PCB-Oil. Microbiology Parameters: (ColilertQT SM9223B;Enterolert-QT: SM9222D-MF.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 200307. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: SM 9222B, 9223B, 9215B, EPA 200.7, 200.8, 245.2, 300.0, SM4500CN-E, 4500H+B, 4500NO3-F, 2320B, 2510B, 2540C, 4500F-C, 5310C, 2120B, EPA 332.0. Organic Parameters: 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM9222D, 9221B, 9222B, 9221E-EC, EPA 3005A, 200.7, 200.8, 245.1, 245.2, SW-846 6010B, 6020, 7196A, 7470A, SM3500-CR-D, EPA 120.1, 300.0, 350.1, 350.2, 351.1, 353.2, 410.4, 420.1, 1664A, SW-846 9010, 9030, 9040B, SM426C, SM2120B, 2310B, 2320B, 2540B, 2540D, 4500H+B, 4500CL-E, 4500CN-E, 4500NH3-H, 4500NO3-F, 4500NO2-B, 4500P-E, 4500-S2-D, 5210B, 5220D, 2510B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D. Organic Parameters: SW-846 3510C, 3630C, 5030B, 8260B, 8270C, 8330, EPA 624, 625, 608, SW-846 8082, 8081A, 8151A.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 6010B, 7196A, 7471A, 1010, 1030, 9010, 9012A, 9014, 9030B, 9040B, 9045C, 9050C, 9065,1311, 1312, 3005A, 3050B. Organic Parameters: SW-846 3540C, 3546, 3550B, 3580A, 3630C, 5030B, 5035, 8260B, 8270C, 8330, 8151A, 8015B, 8082, 8081A.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA935. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: SM9222B, 9221E, 9223B, 9215B, 4500CN-CE, 4500NO3-F, 4500F-C, EPA 300.0, 200.7, 200.8, 245.2, 2540C, SM2120B, 2320B, 2510B, 5310C, SM4500H-B. Organic Parameters: EPA 332, 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM5210B, EPA 410.4, SM5220D, 4500CI-E, EPA 300.0, SM2120B, SM4500F-BC, EPA 200.7, 351.1, LACHAT 10-107-06-2-D, EPA 353.2, SM4500NO3-F, 4500NO2-B, EPA 1664A, SM5310B, C or D, 4500-PE, EPA 420.1, SM510ABC, SM4500P-B5+E, 2540B, 2540C, 2540D, EPA 120.1, SM2510B, SM15 426C, 9222D, 9221B, 9221C, 9221E, 9222B, 9215B, 2310B, 2320B, 4500NH3-H, 4500-S D, EPA 350.1, 350.2, SW-846 1312, 6020, 6020A, 7470A, 5540C, 4500H-B, EPA 200.8, SM3500Cr-D, 4500CN-CE, EPA 245.1, 245.2, SW-846 9040B, 3005A, 3015, EPA 6010B, 6010C, 7196A, 3060A, SW-846 9010B, 9030B. Organic Parameters: SW-846 8260B, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3510C, EPA 608, 624, 625, SW-846 3630C, 5030B, 8081A, 8081B, 8082, 8082A, 8151A, 8330, NJ OQA-QAM-025 Rev.7, NJ EPH.)

Solid & Chemical Materials (Inorganic Parameters: SW-846, 6010B, 6010C, 7196A, 3060A, 9010B, 9030B, 1010, 1030, 1311, 1312, 3005A, 3050B, 7471A, 7471B, 9014, 9012A, 9040B, 9045C, 9050A, 9065. Organic Parameters: SW-846 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 8260B, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3540C, 3545, 3546, 3550B, 3580A, 3630C, 5030B, 5035L, 5035H, NJ OQA-QAM-025 Rev.7, NJ EPH.)

New York Department of Health Certificate/Lab ID: 11148. *NELAP Accredited.*

Drinking Water (Inorganic Parameters: SM9223B, 9222B, 9215B, EPA 200.8, 200.7, 245.2, SM5310C, EPA 332.0, SM2320B, EPA 300.0, SM2120B, 4500CN-E, 4500F-C, 4500H-B, 4500NO3-F, 2540C, SM 2510B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: SM9221E, 9222D, 9221B, 9222B, 9215B, 5210B, 5310C, EPA 410.4, SM5220D, 2310B-4a, 2320B, EPA 200.7, 300.0, SM4500CL-E, 4500F-C, SM15 426C, EPA 350.1, SM4500NH3-BH, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, LACHAT 10-107-04-1-C, SM4500-NO3-F, 4500-NO2-B, 4500P-E, 2540C, 2540B, 2540D, EPA 200.8, EPA 6010B, 6020, EPA 7196A, SM3500Cr-D, EPA 245.1, 245.2, 7470A, SM2120B, LACHAT 10-204-00-1-A, EPA 9040B, SM4500-HB, EPA 1664A, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, SM4500S-D, SM5540C, EPA 3005A, 9010B, 9030B.. Organic Parameters: EPA 624, 8260B, 8270C, 625, 608, 8081A, 8151A, 8330, 8082, EPA 3510C, 5030B.)

Solid & Hazardous Waste (Inorganic Parameters: 1010, 1030, EPA 6010B, 7196A, 7471A, 9012A, 9014, 9040B, 9045C, 9065, 9050, EPA 1311, 1312, 3005A, 3050B, 9010B, 9030B. Organic Parameters: EPA 8260B, 8270C, 8015B, 8081A, 8151A, 8330, 8082, 3540C, 3545, 3546, 3580, 5030B, 5035.)

North Carolina Department of the Environment and Natural Resources Certificate/Lab ID : 666. Organic Parameters: MA-EPH, MA-VPH.

Pennsylvania Department of Environmental Protection Certificate/Lab ID : 68-03671. **NELAP Accredited.**
Drinking Water (Organic Parameters: EPA 524.2, 504.1)

Non-Potable Water (Inorganic Parameters: EPA 1312, 200.7, 410.4, 1664A, SM2540D, 5210B, 5220D, 4500-P, BE.
Organic Parameters: EPA 3510C, 3005A, 3630C, 5030B, 625, 624, 608, 8081A, 8081B, 8082, 802A, 8151A, 8260B, 8270C, 8270D, 8330)

Solid & Hazardous Waste (Inorganic Parameters: EPA 350.1, 1010, 1030, 1311, 1312, 3050B, 3060A, 6010B, 6010C, 7196A, 7471A, 9010B, 9012A, 9014, 9040B, 9045C, 9050, 9065, SM 4500NH₃-H. Organic Parameters: 3540C, 3546, 3580A, 3630C, 5035, 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8260B, 8270C, 8270D, 8330)

Rhode Island Department of Health Certificate/Lab ID: LAO00065. **NELAP Accredited via NY-DOH.**

Refer to MA-DEP Certificate for Potable and Non-Potable Water.

Refer to NJ-DEP Certificate for Potable and Non-Potable Water.

Texas Commission on Environmental Quality Certificate/Lab ID: T104704476-09-1. **NELAP Accredited.**

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664, 200.7, 200.8, 245.1, 245.2, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 6010, 6020, 7196, 7470, 9040, SM 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CL-E, 4500CN-E, 4500F-C, 4500H+B, 4500NH₃-H, 4500NO₂B, 4500P-E, 4500 S²⁻ D, 510C, 5210B, 5220D, 5310C, 5540C. Organic Parameters: EPA 608, 624, 625, 8081, 8082, 8151, 8260, 8270, 8330.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 1312, 9012, 9014, 9040, 9045, 9050, 9065.)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID: 460195. **NELAP Accredited.**

Non-Potable Water (Inorganic Parameters: EPA 3005A, 3015, 1312, 6010B, 6010C, SM4500S-D, SM4500-CN-CE, Lachat 10-204-00-1-X. Organic Parameters: EPA 8260B)

Solid & Hazardous Waste (Inorganic Parameters: EPA 3050B, 1311, 1312, 6010B, 6010C, 9030B, 9010B, 9012A, 9014. Organic Parameters: EPA 5035, 5030B, 8260B.)

Department of Defense, L-A-B Certificate/Lab ID: L2217.

Drinking Water (Inorganic Parameters: SM 4500H-B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: EPA 200.7, 200.8, 6010B, 6020, 245.1, 245.2, 7470A, 9040B, 300.0, 332.0, 6860, 353.2, 410.4, 9060, 1664A, SM 4500CN-E, 4500H-B, 4500NO₃-F, 5220D, 5310C, 2320B, 2540C, 3005A, 3015, 9010B, 9056. Organic Parameters: EPA 8260B, 8270C, 8330A, 625, 8082, 8081A, 3510C, 5030B, MassDEP EPH, MassDEP VPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 200.7, 6010B, 7471A, 9010, 9012A, 6860, 1311, 1312, 3050B, 7196A, 9010B, 3500-CR-D, 4500CN-CE, 2540G, Organic Parameters: EPA 8260B, 8270C, 8330A/B-prep, 8082, 8081A, 3540C, 3546, 3580A, 5035A, MassDEP EPH, MassDEP VPH.)

The following analytes are not included in our current NELAP/TNI Scope of Accreditation:

EPA 8260B: Freon-113, 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene. **EPA 8330A**: PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT. **EPA 8270C**: Methyl naphthalene, Dimethyl naphthalene, Total Methyl naphthalenes, Total Dimethyl naphthalenes, 1,4-Diphenylhydrazine (Azobenzene). **EPA 625**: 4-Chloroaniline, 4-Methylphenol. Total Phosphorus in a soil matrix, Chloride in a soil matrix, TKN in a soil matrix, NO₂ in a soil matrix, NO₃ in a soil matrix, SO₄ in a soil matrix.

CHAIN OF CUSTODY RECORD

ALPHA Job # C1003638

Phone (617) 886-7400
Fax (617) 886-7600

H&A FILE NO. 06318-520

PROJECT NAME

Firm Energy Int Paul
H&A CONTACT C. Worthy

LABORATORY ADDRESS

CONTACT 495 Tech Ctr

DELIVERY DATE

TURNAROUND TIME

PROJECT MANAGER

Page 1 of 1

Sample No.

Date

Time

Depth

Type

VOA

ABNs
PAH only

MCP Metals

Pesticides
PCBsVPH
Full Suite
C-ranges onlyEPH
Full Suite
C-ranges only

TPH (specify)

TCLP (specify)

Reactivity
Ignitability
CorrosivityNumber of
ContainersComments
(special instructions, precautions, additional method numbers, etc.)

Laboratory to use applicable DEP CAM methods, unless otherwise directed.

PCBs by Soxhlet-Exhaust

3540C

Will pending analysis of
other Samples - Contact
Cole Worthy for info

Signed and Relinquished by

Received by

LIQUID

Sampling Comments

Sign *Michael A. Conville*
Print *Michael A. Conville*Sign *Michael A. Conville*
Print *Michael A. Conville*VOA Vial
Amber GlassFirm *H&A*
Date *3/12/12* TimeFirm *H&A*
Date *3/12/12* TimePlastic Bottle
Preservative
Volume

Relinquished by

Received by

SOLID

Sign *Michael A. Conville*
Print *Michael A. Conville*Sign *Michael A. Conville*
Print *Michael A. Conville*VOA Vial
Amber GlassFirm *H&A*
Date *3/12/12* TimeFirm *H&A*
Date *3/12/12* TimePlastic Bottle
Preservative
Volume

Relinquished by

Received by

PRESERVATION KEY

Evidence samples were tampered with? YES NO
If YES, please explain in section below.Sign *Wayne Plummer*
Print *Wayne Plummer*Sign *Wayne Plummer*
Print *Wayne Plummer*VOA Vial
Amber GlassFirm *Alpha*
Date *3/12/12* TimeFirm *Alpha*
Date *3/12/12* TimePlastic Bottle
Preservative
Volume

If Presumptive Certainty Data Package is needed, initial all sections:

The required minimum field QC samples, as designated in BWSC CAM-VII have been or will be collected, as appropriate, to meet the requirements of Presumptive Certainty.
Matrix Spike (MS) samples for MCP Metals and/or Cyanide are included and identified herein.

This Chain of Custody Record (specify) includes does not include samples defined as Drinking Water Samples.

If this Chain of Custody Record identifies samples defined as Drinking Water Samples, Trip Blanks and Field Duplicates are included and identified and analysis of TTCs are required, as appropriate. Laboratory should (specify if applicable) analyze

Required Reporting Limits and Data Quality Objectives

☐ RC-S1 ☐ GW1
☐ RC-S2 ☐ GW2
☐ RC-GW1 ☐ S3
☐ RC-GW2 ☐ GW3

APPENDIX E

Health and Safety Plan Specification and Soil and Material Management Specification

SECTION 01310 – HEALTH & SAFETY

PART 1 – GENERAL

1.01 GENERAL REQUIREMENTS

- A. The Contractor is solely responsible for the health, safety, and protection of all on-site workers including its employees, Subcontractors, material vendors and the public during performance of the Work described herein. Therefore, the Contractor shall provide and implement a site specific Health and Safety Plan (HASP) meeting all applicable Federal, State, and Local requirements.
- B. Examine all other sections of the Specifications for requirements that affect work of this Section, whether or not such work is specifically mentioned in this Section.
- C. Coordinate work with that of all other trades affecting or affected by work of this Section. Coordinate with such trades to assure the steady progress of all Work under the Contract.
- D. Ensure that Subcontractors comply with the requirements of the Contractor's HASP.

1.02 DESCRIPTION OF WORK

Work included: Work under this Section includes, but is not limited to, the following items including all labor, materials, equipment and services necessary and incidental to adhere to the requirements of a HASP during execution of the Work.

- A. Preparation of a HASP for all workers engaged in work at the Site. The HASP shall be prepared by a Certified Industrial Hygienist, Certified Safety Professional or equal environmental health professional who is qualified by training and experience to perform this work and comply with 29 CFR 120(b).
- B. All employees who will be working in or near potentially contaminated soil, water or air shall have successfully completed an OSHA 40 hour Health and Safety training course and be current in OSHA training certifications through annual 8 hour refresher training in compliance with the OSHA hazardous waste operations and emergency response codified at 29 CFR 1910.120, and specific training for site activities. Field supervisors and managers shall have successfully completed supervisory training. Submit documentation of training for all on-site personnel.
- C. Providing health and safety equipment including protective clothing, respiratory equipment and monitoring instruments.
- D. Decontamination of construction equipment, tools and other non-disposable items that may have been in contact with site pollutants prior to removal of such equipment from the site in accordance with TSCA regulations and as described in Section 02200.

1.03 SPECIAL SITE CONDITIONS

- A. Levels of personal protection are established in reference standards. It is anticipated that most of the work at this site may be conducted using typical construction health and safety practices

as described in OSHA safety and health regulations for construction codified at 29 CFR 1926. The work to be conducted at the Site is not anticipated to require personal protection above that provided by Level D. Contractor shall be prepared to upgrade to Level C, which requires the use of a respirator, if required.

- B. The work will involve handling of PCB-impacted soil. Site characterization data also indicated that chemical constituents such as PAHs, petroleum hydrocarbons, heavy metals, and to a lesser extent VOCs, are present in the urban fill. Handling of the impacted soils is anticipated to result in the emission of dust and potentially petroleum odors. The Contractor is required to mitigate such emissions within the work area that may cause risk to the public or cause nuisance conditions.

1.04 NEW MATERIALS AND PRODUCTS

Follow material safety data sheets and the manufacturer's recommendations for worker protection, use, storage and disposal of products used on-Site.

1.05 REFERENCE STANDARDS

- A. TSCA: 40 CFR Part 761
- B. NIOSH/OSHA/USCG/EPA: "Occupational Safety and Health guidance Manual for Hazardous Waste Site Activities," October 1985.
- C. OSHA: 29 CFR Parts 1910 and 1926
- D. EPA: Executive Orders 12223 and 1440.2
- E. EPA : Executive Order 3100.1

1.06 HEALTH & SAFETY OVERSIGHT

- A. Contractor shall have sole responsibility for implementation of the HASP. Contractor shall also be responsible for implementation of the HASP by all Subcontractors. The Contractor shall provide a Site Safety Officer (SSO) who shall be assigned to the site at all times during the project. The SSO shall be responsible for ensuring that the HASP is properly implemented. The SSO will be charged with: overseeing site health and safety; monitoring and protection of public health and safety as it is related to the Work; instrument monitoring; personnel and equipment decontamination; control of equipment check-out; site traffic control; and emergency response. Other responsibilities include monitoring workers for weather-related exposures or stresses during their use of personal protective clothing and equipment (PPE).
- B. The SSO shall have a working knowledge of TSCA and State and Federal occupational safety and health regulations and formal training in occupational safety and health, with at least 2 years related working experience specific to the handling of contaminated soils. Prior to commencement of any site activities, the SSO shall review the HASP and provide training on PPE use to all on-site employees who will be working in or near contaminated materials. New employees or visitors to these areas shall be informed of the site conditions by the SSO. If visitors enter those areas, PPE and training required at that time within that area by the Contractor's personnel shall be required.

1.07 SUBMITTALS

- A. Submit the names, qualifications and experience of the following individuals identified by the Contractor for approval by the Engineer, prior to the submittal of the HASP:
 - 1. Certified Industrial Hygienist, Certified Safety Professional or environmental health professional responsible for the preparation of the HASP.
 - 2. Site Safety Officer.
- B. Submit the following information to the Engineer for review:
 - 1. HASP which includes levels of protection and a schedule for training of Contractor's and Subcontractor's workers in the use of respiratory equipment and use of protective clothing. Training will not be provided by the Owner or Engineer.
 - 2. A list of all personnel who will enter the site, copies of certification of training and certification of compliance with medical monitoring requirements. This documentation must be submitted and reviewed by the Owner/Engineer prior to personnel performing on-site work.
 - 3. Documentation of respirator fit tests shall be required prior to their use.
- C. The HASP shall be submitted seven (7) days in advance of the Preconstruction Meeting for discussion at that meeting.

PART 2 – PRODUCTS

Not Used.

PART 3 – EXECUTION

3.01 HEALTH AND SAFETY PLANNING AND IMPLEMENTATION

- A. Prepare a HASP in accordance with 29 CFR 1910.120(b) which will ensure the health and safety of all workers engaged in work at the site and the public, in particular, occupants of the surrounding buildings, at all times when handling, or exposure to contaminated soil or water is possible. Implement the plan throughout the execution of the work. The plan shall include, but not limited to, the following information:
 - Compounds of Concern and signs/symptoms of exposure.
 - Potential for worker exposure to the compounds of concern for each work task.
 - Safety issues related to operation of heavy equipment, and site operations.
 - Provisions for work zone security and protection of the public who access the Site or the perimeter of the work area.
 - Requirements for OSHA training for each work task and a record, or schedule for

training, of Contractor's workers in the use of personal protective equipment. Please note that training will not be provided by the Owner or Engineer.

- Work task specific levels of protection and a description of health and safety equipment including protective clothing, respiratory equipment and monitoring instruments.
 - Action levels for donning personal protective equipment; description of monitoring instruments.
 - Procedures for monitoring the perimeter of the work area for potential emissions of dust that warrant mitigation to protect public health or to avoid nuisance conditions.
 - TSCA compliant procedures for decontamination of personnel and heavy equipment and tools as described in Section 02200. The HASP shall provide a figure indicating the hot zone, the contaminant reduction zone and the support zone.
 - Emergency Response Plan, including the names and phone numbers of individuals or agencies who shall be contacted in the event of on-site injury or release of oil or hazardous material.
 - Identification and qualifications of Contractor's SSO.
 - Management of Subcontractors.
- B. The Contractor shall monitor ambient air in the area of the Work in accordance with the HASP and shall provide the Engineer with monitoring results relevant to the selection of levels of personnel protective equipment. Should Level C protection be required during the Work, the Contractor will be required to monitor the work area and the perimeter of the Site to ensure there are no off-site emissions of dust or other airborne hazards that might pose a risk to public health and safety or create a nuisance.
- C. Require all workers who will engage in work at the Site to attend a health and safety orientation meeting.
- D. Provide adequate health and safety training for all personnel who will be engaged in work at the Site that might result in exposure to contaminated air, soil, or water.
- E. Conduct health and safety meetings at the beginning of each work day to review specific hazards associated with the work planned for that day, PPE and operational controls to mitigate those hazards, and contingency plans and emergency procedures to respond to potential problems.
- F. Personnel who have not received training or who are not equipped with the required protective clothing and equipment shall not be permitted access to the Site during execution of work which may result in exposure to contaminated soil or water or other materials.
- G. Air monitoring will be performed continuously in the breathing zone of the work area during soil excavation and material management activities onsite.
- H. Air monitoring data will be recorded for each monitoring event. At the completion of the Work, provide the Owner/Engineer with all air monitoring data.

3.02 DECONTAMINATION

- A. Decontaminate all equipment and tools which have come in contact with contaminated soil, groundwater and other materials to prevent the spread of contamination within the Site and outside the Site limits in accordance with TSCA regulations and as described in Section 02200.
- B. Dispose of all decontamination by-products in accordance with Local, State, Federal and TSCA regulations.
- C. Provide on-site facilities for Contractor personnel to decontaminate their protective clothing or other equipment.

3.03 ACCIDENT REPORTING REQUIREMENTS

- A. The Contractor shall comply with the following accident and/or incident reporting requirements.
 - 1. Should any unforeseen safety-related factor, hazard, or condition become evident during the performance of the work, the Contractor shall immediately take prudent action to establish, maintain, and secure the Site and working conditions. This shall be followed by immediate notice to the Owner and the Engineer.
 - 2. If a serious injury (requiring medial attention) to a person or damage to property, environment, or natural resources result from an incident, the Contractor shall immediately report the incident to the Owner and the Engineer. The report shall be followed by a written document describing the incident, what hazards were created by it, and a detailed statement of what actions were taken to correct the problem. The Contractor will also include a description of why the actions taken were prudent.
 - 3. Should any sudden, continuous, or intermittent release of oil or hazardous material occur during the course of work, the Contractor shall notify the Owner and the Engineer immediately and shall immediately begin actions to contain or abate the release. The Contractor shall immediately arrange for clean-up activities. The Owner shall make necessary notifications to the Massachusetts Department of Environmental Protection (MassDEP). If the release is from PCB-impacted material EPA shall be notified. If navigable waters are impacted the National Response Center will also be notified.
 - 4. Comply with all Owner notification and follow up reporting requirements.

END OF SECTION

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SECTION 02000 – SOIL AND MATERIAL MANAGEMENT

PART 1 – GENERAL

1.01 GENERAL PROVISIONS

- A. Attention is directed to the GENERAL TERMS AND CONDITIONS and all Sections within DIVISION 01 - GENERAL REQUIREMENTS which are hereby made a part of this Section of the Specifications.
- B. Examine all Drawings and all other Sections of the Specifications for requirements therein affecting the work of this Section.
- C. Coordinate work with that of all other trades affecting or affected by work of this Section. Cooperate with such trades to assure the steady progress of all work under the Contract.

1.02 DEFINITIONS AND REFERENCE STANDARDS

- A. Owner: The term Owner shall refer to The McCourt-Broderick Limited Partnership, c/o The McCourt Company, Inc.
- B. Owner's Representative: The term Owner's Representative shall refer to Haley & Aldrich, Inc. or other authorized representative to the Owner.
- C. Contractor: The term Contractor shall refer to the person or organization identified as being responsible for the work of this Section.
- D. DEP: Massachusetts Department of Environmental Protection
- E. EPA: U.S. Environmental Protection Agency
- F. TSCA: Toxic Substances Control Act
- G. MCP: Massachusetts Contingency Plan
- H. OSHA: Occupational Safety and Health Administration
- I. PID: Photoionization detector
- J. RAM: Release Abatement Measure
- K. RAO: Response Action Outcome
- L. LSP: Licensed Site Professional
- M. BWP: Massachusetts Department of Environmental Protection, Bureau of Waste Prevention
- N. SIP" Self-Implementing Cleanup and Disposal Plan
- O. PPM: Parts per million

- P. DEP, 310 CMR 40.0000, MCP, latest version:
1. Management of Remediation Waste: 310 CMR 40.0030
 2. Health and Safety Procedures: 310 CMR 40.0018
- Q. DEP, 310 CMR 7.00, Air Pollution Control
- R. DEP Policies (most current versions):
1. COMM-97-001, Reuse and Disposal of Contaminated Soil at Massachusetts Landfills.
 2. WSC-00-425, Construction of Buildings in Contaminated Areas.
 3. WSC-94-400, DEP "Interim Remediation Waste Management Policy for Petroleum Contaminated Soils."
 4. WSC-402-96, Commonwealth of Massachusetts Underground Storage Tank Closure Assessment Manual."
- S. DEP, 310 CMR 16.00 and 19.000, Solid Waste Management Facility Regulations, latest version.
- T. Hazwoper: OSHA Regulation 29 CFR 1910.120
- U. Massachusetts Board of Fire Prevention, 527 CMR 9.00, Tanks and Containers, latest version.
- V. Massachusetts Department of Environmental Protection, Bureau of Waste Prevention (BWP), 310 CMR 7.15 for Asbestos Containing Materials (ACM).
- W. WSC-02-320 The Compendium of Quality Assurance and Quality Control Requirements and Performance Standards for Selected Analytical Methods Used in Support of Response Actions for the MCP.
- X. Massachusetts Department of Environmental Protection, 310 CMR 30.000, Hazardous Waste Regulations, latest version.
- Y. EPA, 40 CFR 761, Toxic Substances Control Act (TSCA)

1.02 DESCRIPTION OF WORK

- A. This Section provides procedures and requirements for management of excavated soils and materials including; material stockpiling, off-site transportation, off-site reuse, recycling, treatment, and disposal. The following work shall be undertaken by the Contractor:
1. Excavate, handle, re-handle, load, and transport soils and materials from the site to legal off-site reuse, recycling, treatment, and disposal facilities in accordance with the criteria contained herein, and the provisions of the Massachusetts Contingency Plan (MCP) 310 CMR 40.0000, TSCA, and all other applicable state and federal laws and regulations.
 2. If necessary due to Site logistics and scheduling, stockpile TSCA regulated soils within the Exclusion Zone. Soils should be stored in lined roll-off containers or placed on and covered with double-lined polyethylene sheeting to prevent water intrusion into the stockpile. Soil stockpiles will be surrounded by silt fence or hay bales to prevent migration of PCB-contaminated soil.

4. Manage groundwater and surface water that is collected, treated, or discharged at the site as part of construction or a response action in compliance with all applicable provisions of the federal, state, or local laws, regulations, or bylaws and the criteria of this Section.
5. At the direction of the Owner's Representative, temporarily stockpile soils that have not been precharacterized, appear inconsistent with precharacterization data based on visual or olfactory evidence of contamination, require additional chemical testing, or are approved for reuse on site in accordance with the requirements contained herein.
6. Determine the destination facility using the chemical test data provided and contract for off-site reuse, recycling, treatment, and disposal directly with each facility approved by the Owner. The Contractor shall complete all paperwork necessary to transport excavated soils and materials from the site to approved off-site facilities as specified herein. The Contractor shall forward a signed acceptance letter from each of the receiving facilities to the LSP prior to shipment of material off-site.
7. Excavate materials by methods which will permit observation of exposed subsurface soils to identify, test and segregate any soils/wastes, and will eliminate the potential for mixing contaminated soils with uncontaminated soils. Excavation shall be limited in depth and area to limit cross-contamination.
8. No soil or other excavated materials shall be shipped off-site without a Uniform Hazardous Waste Manifest, Bill of Lading or Material Shipping Record. The Owner will provide the services of an LSP to manage the off-site removal process including preparation of Bills of Lading and Material Shipping Records. The Contractor will be responsible for preparation of Uniform Hazardous Waste Manifests.
9. The Contractor shall not remove regulated or hazardous contaminated soil or materials from the site without approval of the DEP, the Licensed Site Professional (LSP) and the Owner.
10. Uncoated concrete debris excavated within TSCA regulated areas of the site shall be stockpiled separately from other materials, cleaned and tested prior to processing and/or on site reuse in accordance with TSCA regulations.
11. Coated concrete, if encountered, will be disposed of off-site as demolition debris. .
12. No excavated soils or materials shall leave the site without the prior approval of the Owner's Representative. Additionally, no soils or materials shall be imported to the site without the prior approval of the Owner's Representative.
13. Establish, identify, and maintain an Exclusion Zone, Contamination Reduction Zone, and Support Zone during work conducted in area(s) regulated by TSCA. Establish and maintain a decontamination station(s) to decontaminate heavy equipment, tools, and personnel that enter area(s) regulated by TSCA.
14. Establish and maintain temporary roadways through the Exclusion Zone to isolate trucks and other equipment from PCB-impacted soils and to avoid cross-contamination of soils.
15. Decontaminate all equipment and tools that have come in contact with TSCA-regulated polychlorinated biphenyl (PCB)-contaminated soils with greater than or equal to 50 ppm PCBs in accordance with TSCA Subpart S – Double-Wash/Rinse Method for Decontaminating Non-Porous Surfaces.
16. Decontaminate all equipment and tools that have come in contact with TSCA-regulated PCB-contaminated soils with greater than 1 ppm and less than 50 ppm PCBs in accordance with 40 CFR Ch. 1 §761.79 Decontamination Standards and Procedures.

17. Personnel and non-disposable PPE shall be decontaminated in accordance with the approved Contractor's H&SP prepared by the Contractor in accordance with Section 318000 - Environmental Health & Safety.

1.03 QUALITY ASSURANCE/ QUALITY CONTROL

- A. The Engineer will monitor the Contractor's activities associated with the Work of this Section. This monitoring will include, but not be limited to:
 1. Observing and screening excavated soils and as necessary to confirm that their quality is consistent with the findings of the previous exploration programs;
 2. Establishing requirements for stockpiling, segregating, and handling;
 3. Reviewing requests from Contractor-proposed off-site reuse, recycling, treatment, and disposal facilities for additional chemical testing; and
 4. Verifying that the appropriate LSP-prepared paperwork accompanies each load of excavated soil and material that is transported from the site.
18. Perimeter Dust Monitoring:
 - a. The Owner's Representative will continuously perform dust monitoring at the perimeter (fence line) during excavation of soils to document potential exposures to the general public. This perimeter dust monitoring data will be provided to the Contractor for informational purposes only.
 - b. Total Airborne Dust: The action level for employment of dust suppression techniques is the presence of visible dust. If visible dust is observed during remedial excavation activities, the Contractor will employ dust control measures to limit airborne dust. Additionally, the Contractor will monitor dust levels within the TSCA Work Zone using portable dust meters. Fence line monitoring will be conducted along South Boston Bypass Road and Cypher Street during soil removal activities. The fence line action level will be established at 100 ug/m³ above background conditions in accordance with EPA National Ambient Air Quality Standards for PM₁₀ that MassDEP has adopted. This standard is based on particle concentrations measured as PM₁₀, which includes particles with an aerodynamic diameter of 10 micrometers (µm) and less. In the event this action level is exceeded, more stringent dust control measures will be implemented by the Contractor.

1.04 PROJECT CONDITIONS

- A. Several investigations, assessments, and other environmental activities have been performed at the Site. Reports prepared from these activities provide information on site conditions. The following information is provided to Invited Bidders as Appendix A through Appendix C as outline in Section 00300.
- B. Management of excavated soils and collected water (from all natural and man-made sources) shall be conducted in accordance with the requirements of this Section, the SIP Plan, the Contractor's approved HASP, and the MCP.

- C. No excavated soils or materials shall leave the site without the prior approval of the Owner and Engineer. Additionally, no soils or materials shall be imported to the site without the prior approval of the Owner and Engineer.

1.05 OFF-SITE MATERIAL DISPOSAL

Owner has designated an approved facility for disposing of contaminated material. Uncontrolled off-site reuse of contaminated or uncontaminated material for other projects is prohibited.

- A. Analytical data indicated that Site soils contain concentrations of PCBs which are less than 50 ppm and will be transported to a RCRA Subtitle D landfill (Waste Management TREE in Rochester, New Hampshire) or (if approved) to ESMI in Loudon, New Hampshire. Other RCRA Subtitle D landfill or permitted treatment facilities may also be considered; if so, they will be provided to EPA for approval.

1.06 SUBMITTALS

- A. The Contractor shall submit the information specified herein to the Owner's Representative for review. Unless otherwise specified, submittals shall be made not less than three weeks before the start of work. These submittals shall be reviewed and acceptable to the Owner's Representative prior to conducting any work. The Contractor shall forward submittals in advance considering that re-submittals may be required prior to acceptance.
- B. Off-site Reuse, Recycling, Treatment, and Disposal Facilities
 - 1. Prior to submitting a bid, provide the name, address, telephone number, and contact person for each proposed off-site reuse, recycling, treatment, and disposal facility or location to the Owner for review. This submittal is considered a prescreening of the Contractor-proposed receiving facilities or locations.
 - 2. A minimum of 30 days prior to transport of any soils from the site, submit a letter from each Contractor-proposed receiving facility or location providing all of the information outlined below. The submittal will not be considered complete without all of this information. The Owner will review and approve up to two facilities for each soil group. Additional reviews will be conducted at the Contractor's expense.
 - a. A statement from the facility, or the facility's LSP (for facilities that are not licensed by the State), indicating that the facility has reviewed the applicable precharacterization data and soil disposal quantity information provided by the Contractor and can legally accept the material. This statement shall also include any contingencies upon which the acceptance is based.
 - b. A statement from the facility, or the facility's LSP (for facilities that are not licensed by the State), indicating if additional soil quality testing is required to meet the facility's acceptance criteria. If additional testing is required, the facility shall indicate types, numbers, and locations of tests. With the exception of soils chemically treated on site, the Owner will evaluate the requested additional testing, determine the reasonableness of the request, and arrange for and conduct the additional testing as necessary. The Contractor shall provide the equipment (e.g., excavators and/or drill rigs) to obtain the samples at no additional cost to the Owner.
 - c. A copy of the facility's permit, consent order(s), and other applicable documentation under which the facility is operating that indicate the facility's testing requirements and acceptance criteria.

- d. A statement from the facility, or the facility's LSP (for facilities that are not licensed by the state), indicating the following:
 - i. That the facility is operating in accordance with its permit, consent order(s), and other applicable documents.
 - ii. If any previous violations or complaints have been filed against the facility; and, if so, provide a brief statement describing the violation(s), how it was addressed, and its current status.
 - iii. Proposed use of soil or material (i.e., reuse, treatment, disposal, or other) at the facility.
 - iv. Description of quality assurance/quality control chemical sampling (QA/QC) that may be conducted on materials proposed for transport to the facility.
 - v. Any limitations on soils or materials proposed for transport to the facility based on material consistency (i.e., granular soil, organic soil, or cohesive soil, debris content, slurry excavate, etc.).
 - vi. Whether the facility is an EPA Superfund site or part of one.
 - vii. Describing any remedial treatment systems that are in operation at the facility.
 - viii. If any releases have occurred at or adjacent to the site, if they have been reported to the DEP, EPA, or applicable State Agencies, the Release Tracking Number(s) and the status of the release.
- e. Facility information necessary to complete Section E of DEP Bureau of Waste Site Cleanup Form BWSC-012A Bill of Lading (Group V soils).
- f. For facilities or locations that are not licensed by the State, provide the following:
 - i. A letter of permission from the local Board of Health and other governing authorities (e.g., Conservation Commission) authorizing the facility or location to receive soils of the Group classifications proposed by the Contractor.
 - ii. Background chemical test data on soil and groundwater representing conditions at the proposed facility or location.
 - iii. A statement indicating whether or not the facility or location is in an aquifer recharge area.
- g. The Owner and the Owner's Representative will review information submitted by the Contractor as detailed herein. The Owner may reject a facility if the submittal process is incomplete, or if the Owner deems the proposed facility unacceptable. Reasons that a facility may be deemed unacceptable include, but are not limited to, the following; if the facility is not operated in accordance with state guidelines or a state granted permit applicable to or issued to the facility; if the facility is or is part of an EPA Superfund Site or is part of a Massachusetts listed spill or disposal site; if the facility is located on an aquifer; if there are unreported or outstanding releases at the site; if previous releases have not been dealt with to the satisfaction of the Owner; if the facility controls for accepting and monitoring waste are not adequate; if background data at Group I facilities is not adequate to characterize the site; if the site is or contains residential developments, drinking water wells, playgrounds, or churches; if existing material at the site does not meet the permit or site guidelines; or any reason that may put the Owner at risk.
- h. If, after the start of work, a Contractor-proposed receiving facility is reviewed and considered acceptable to the Owner, the Contractor will realize a cost-savings by utilizing the accepted facility (including but not limited to cost savings realized from trucking and tipping fees), the cost savings shall be shared equally by the Owner and the Contractor.
- i. Once the submittal requirements outlined above are completed to the satisfaction of the Owner's Representative, the Owner's Representative will prepare a letter of

acceptance for signature by the facility, the facility's LSP, or other authorized representative of the facility. This letter, once signed and returned to the Owner's Representative, will constitute approval of the facility for this project. The Owner's Representative will prepare this letter within 14 days of satisfactory completion of the above submittal requirements. The Owner maintains the right to reject any proposed facility at any time in the review and acceptance process.

3. A minimum of 14 days prior to transport of any soils from the site, provide a letter stating the name and address of the transporter for each material group classification and each off-site facility as applicable. The Owner's Representative will prepare a Bill of Lading or Material Shipping Record for each facility within 14 days of approval of the facility and following receipt of the transporter information. The contractor will be responsible for preparing Uniform Hazardous Waste Manifests.
 4. Within 20 calendar days of the last shipment to each facility, submit copies of completed Bills of Lading documenting transport of excavated soils and materials from the site to approved off-site disposal, reuse, recycling, and treatment facilities. The submittal shall also include weight slips for each load transported from the site to the disposal facility.
 5. Within 14 calendar days of the shipment of each load of Hazardous Waste, submit copies of completed Hazardous Waste Manifests documenting transport of excavated soils and materials from the site to approved off-site disposal facility. The submittal shall also include weight slips for each load transported from the site to the disposal facility.
- C. A narrative describing the schedule, sequence, and procedures for the treatment, excavation and off-site disposal of soil, on site stockpiling, on site reuse/processing of excavated soils or other materials. Narrative shall include description and accompanying scale drawing indicating the space to be used for various activities (e.g., storage for soil). Narrative shall include schedule, site logistics and anticipated volume of soil and material generation for various activities.
- D. A presentation by the Contractor to the Owner and the Owner's Representative describing the schedule, sequence, and procedures for the treatment, excavation and off-site disposal of soil, on site stockpiling of excavated soils or other materials. Contractor field personnel integral to the execution of the Work (e.g., Superintendent, Foreman, etc.) shall be present at the Presentation. The presentation shall include schedule, site logistics and anticipated volume of soil and material generation for various activities, and schedule and anticipated location for reuse of stockpiled soils or reclaimed debris.
- E. A detailed plan(s) and written description showing proposed schedule and sequence for the following:
1. Descriptions, location(s) and proposed limits of Exclusion Zone, Contamination Reduction Zone, and Support Zone for work to be conducted in area(s) regulated by TSCA.
 2. Description and location of decontamination station(s) to decontaminate heavy equipment, tools, and personnel that exit area(s) regulated by TSCA. The decontamination of heavy equipment and tools shall be conducted in accordance with TSCA Subpart S – Double-Wash/Rinse Method for Decontaminating Non-Porous Surfaces (PCBs greater than or equal to 50 ppm) and 40 CFR Ch. 1 §761.79 Decontamination Standards and Procedures (for PCBs greater than 1 ppm and less than 50 ppm).
 3. Description and location of decontamination trailer equipped with men's and women's showers and sinks, and separate changing areas.

4. Description of proposed procedures for collection and disposal of decontamination fluids and other materials generated from decontamination procedures.
- F. Within 20 days after the off-site disposal of any PPE, Decontamination Liquid, PCB impacted debris, sediment tank soils, or other generated materials related to the site remediation activities, the Contractor shall forward copies of the waste profiles to the project Owner's Representative in accordance with the MCP and TSCA.
- G. Mitigation measures to control site dust should results of the fenceline dust monitoring program exceed specific Action Levels provided in the RAM Plan or as referenced in this specification.

PART 2 – PRODUCTS

2.01 STOCKPILE/CONTAINMENT MATERIALS

- A. Polyethylene: 6-mil and 20-mil thickness.
- B. Steel roll-off containers (watertight)
- C. Jersey Barriers for definition of Work area and containment of stockpiles.
- D. Snow fencing or other high visibility barriers for definition of Exclusion Zone, Contaminant Reduction Zone, and Support Zone

PART 3 – EXECUTION

3.01 GENERAL

- A. Conduct all work under this and other applicable sections in accordance with all local, state, and federal regulations and Contractor health and safety protocol.

3.02 EXCAVATION

- A. Excavate by methods that will permit observation of soils for the purpose of identifying, screening, testing, and segregating soils as necessary prior to off-site removal.
- B. Excavate beyond the limits of proposed improvements when directed by the Owner's Representative to remove localized areas of stained soil which indicate visual, olfactory, or field screening evidence of contamination.
- C. Conduct excavation to prevent cross-contamination of soil group classifications.
- D. Segregate oversized and/or other deleterious materials from excavated soils prior to off-site removal or on site reuse as necessary to meet disposal facility acceptance criteria, to meet Geotechnical specifications for reuse, or as directed by the Owner's Representative. Segregation may consist of hand labor or mechanical screeners.

3.03 TEMPORARY STOCKPILING OF EXCAVATED MATERIAL

- A. Excavated soils shall be loaded directly onto trucks for removal to approved off-site facilities. Soils shall not be stockpiled on site or at temporary off-site locations unless otherwise approved by the Engineer.
- B. If prior approval from the Engineer is obtained, the Contractor shall stockpile soils on either 20-mil polyethylene sheeting or impermeable surfaces such as competent asphalt within the excavation limits at the end of the day or week and securely covered with polyethylene sheeting to provide confinement. The Contractor shall place jersey barriers or other suitable barriers (granite blocks etc) to provide confinement. Haybales and other siltation control measures may be required to prevent erosion and washing of stockpiled soils from their temporary storage locations.
- C. Stockpiles shall be securely covered with 6-mil polyethylene sheeting at the end of each workday to prevent erosion or the emission of fugitive dust, odors, and gases.

3.04 CLASSIFICATION OF SOILS

- A. Excavated materials shall be classified into five general groups for purposes of off-site disposal, reuse, recycling, and treatment according to criteria established by applicable federal, state, and local agencies having jurisdiction over the Work. Based on the results of the precharacterization program soils proposed for excavation and off-site soil disposition have been classified as Group V-1 as described below. Soils may be reclassified by the Owner's Representative during excavation based on field PID screening, visual and olfactory observations, and the results of additional laboratory chemical testing collected following completion of supplemental testing. In no case shall any soil or material group be transported to residential settings, schools, playgrounds, or similar sites.

1. GROUP I:

- a. Group I-1: Naturally-deposited soils that contain no detectable TPH, VOC, PCB, and/or other contaminant concentrations, and no metals and/or PAH concentrations above those included in Table I (Concentration in "Natural Soil") of DEP's Technical Update to WSC/ORS # 95-141 "Background Levels of Polycyclic Aromatic Hydrocarbons and Metals in Soil," dated May 2002. These soils may be disposed or reused at locations: (1) determined acceptable by Owner, and (2) where the concentrations of oil or hazardous material in the receiving location soils are similar to or higher than the site soils. Quarries may accept these soils. Alternately, these soils may be reused as daily cover, intermediate cover, or pre-cap contouring material at in-state, unlined landfills.
- b. Group I-2: Naturally-deposited soils that contain oil, waste oil, or hazardous materials at concentrations less than applicable RCS-1 Reportable Concentrations specified in 310 CMR 40.1600, and that are not otherwise a hazardous waste, as specified in DEP Policy. These soils may be disposed or reused at similar urban locations: (1) approved by the Owner, (2) where the concentrations of oil or hazardous material in the receiving location soils are similar to or higher than the site soils, and (3) that have obtained specific DEP and/or local (i.e., Board of Health, Conservation Commission) approval to accept material with less than RCS-1 contamination levels. Quarries acceptable to Owner may accept these soils. Alternately, these soils may be reused as daily cover, intermediate cover, or pre-cap contouring material at in-state, unlined landfills.

- c. Group I-3: Urban fill or organic soils that contain oil, waste oil, or hazardous materials at concentrations less than applicable RCS-1 Reportable Concentrations specified in 310 CMR 40.1600, and that are not otherwise a hazardous waste, as specified in DEP Policy. These soils may be disposed or reused at similar urban locations: (1) approved by the Owner, (2) where the concentrations of oil or hazardous material in the receiving location soils are similar to or higher than the site soils, and (3) that have obtained specific DEP and/or local (i.e., Board of Health, Conservation Commission) approval to accept material with less than RCS-1 contamination levels. Quarries may accept these soils. For bidding purposes, the Contractor shall assume that these soils are to be reused as daily cover, intermediate cover, or pre-cap contouring material at in-state, unlined landfills.
 - d. Group I soils may be transported off-site under the provisions of the MCP without notice or approval from the DEP.
 - e. Transport of Group I soils from the site to appropriate off-site facilities shall be tracked using either DEP Material Shipping Record & Log Forms or Bureau of Waste Site Cleanup Bills of Lading, both of which will be prepared by the Owner's LSP.
2. GROUP II: Soils that contain oil, waste oil, or hazardous materials at concentrations greater than or equal to applicable RCS-1 release notification thresholds specified in 310 CMR 40.0300, and that are not otherwise a hazardous waste as specified in DEP Policy. Group II soils are considered Remediation Waste and require management under the MCP unless specifically indicated otherwise. Unless otherwise specified, transport of Group II soils from the site to appropriate off-site facilities shall be tracked using Bureau of Waste Site Cleanup Bills of Lading prepared by the Owner's LSP. Group II soils require off-site reuse, recycling, treatment, or disposal at DEP-approved facilities based on the results of the Precharacterization Testing Program and criteria outlining the following Groups:
- a. Group II-1: Soils that meet all applicable criteria (i.e., COMM-97-001 and/or facility-specific permit requirements) for reuse as daily cover, intermediate cover, or pre-cap contouring material at in-state, unlined landfills.
 - b. Group II-2: Soils that meet all applicable criteria (i.e., COMM-97-001 and/or facility-specific permit requirements) for reuse as daily cover, intermediate cover, or pre-cap contouring material at in-state, lined landfills.
 - c. Group II-3: Soils that meet all applicable criteria for in-state recycling (i.e., WSC-94-400 and/or facility-specific licensing requirements) at the proposed in-state recycling facility, and that are not classified as a RCRA Hazardous Waste.
 - d. Group II-4: Soils that contain concentrations of contaminants that require removal to regional thermal treatment facilities or out-of-state recycling facilities, and that are not classified as a RCRA Hazardous Waste.
 - e. Group II-5: Soils that contain concentrations of contaminants that require removal to regional disposal facilities, and that are not classified as a RCRA Hazardous Waste.
3. GROUP III (Hazardous Waste): Soils that meet specific "listed" or "characteristic" hazardous waste criteria as defined in 310 CMR 30.000, the "Massachusetts Hazardous Waste Regulations."
- a. Group III-1: Soils determined to contain "listed" or "characteristic" hazardous waste constituents that cannot be readily treated on site. This material must be transported to an out-of-state approved RCRA Subtitle C hazardous waste disposal or treatment facility under Uniform Hazardous Waste Manifest.
 - b. Group III-2: Soils determined to contain "listed" or "characteristic" hazardous waste constituents that can be readily treated on site to remove applicable leachable

contaminant concentrations. The material will be reclassified depending on other contaminants and disposed of at a Group II-2, II-3, II-4, or II-5 facility.

4. **GROUP IV (Solid Waste):** Debris such as granite blocks, asphalt, brick, concrete, reinforced concrete, timber piles, timber cribbing, steel sheeting, and miscellaneous rubble shall be salvaged, reused, and/or recycled to the greatest extent practicable. Group IV materials are further defined as those located below-grade (i.e., not surface asphalt, surface concrete slabs, demolished building foundations, surface treatments, or solid waste exposed at ground surface). Off-site reuse and recycling of Group IV material shall be conducted in accordance with the requirements of 310 CMR 19.017 and TSCA. Group IV materials are classified into the following six sub-groups.
 - a. Group IV-1: Asphalt, brick, and concrete (both unreinforced and reinforced) materials.
 - b. Group IV-2: Timber piles and cribbing, and other wood waste materials.
 - c. Group IV-3: Granite blocks, steel sheeting, and other miscellaneous rubble.
 - d. Group IV-4: 12-inch minus concrete and other building rubble determined to contain greater than 1 ppm PCBs, but less than 20 ppm PCBs.
 - e. Group IV-5: Concrete and other building rubble determined to contain greater than 1 ppm PCBs, but less than 50 ppm PCBs.
 - f. Group IV-6: Concrete and other building rubble determined to contain greater than or equal to 50 ppm PCBs.
5. **GROUP V:** Soils that have been impacted by Polychlorinated Biphenyls (PCBs) at concentrations greater than or equal to 1 ppm. Group V soils require management according to TSCA regulations unless specifically indicated otherwise.
 - a. **Group V-1:** Soils determined to contain greater than 1 ppm PCBs, but less than 50 ppm PCBs. Additionally, these soils were determined to not contain "listed" or "characteristic" hazardous waste constituents.
 - b. Group V-2: Soils determined to contain greater than or equal to 50 ppm PCBs. Additionally, these soils were determined to not contain "listed" or "characteristic" hazardous waste constituents.
 - c. Group V-3: Soils determined to contain greater than 1 ppm PCBs, but less than 50 ppm PCBs. Additionally, these soils were determined to contain "listed" or "characteristic" hazardous waste constituents that can be readily treated on site to remove applicable leachable contaminant concentrations. The material will be reclassified depending on other contaminants after on site treatment.
 - d. Group V-4: Soils determined to contain greater than or equal to 50 ppm PCBs. Additionally, these soils were determined to contain "listed" or "characteristic" hazardous waste constituents that can be readily treated on site to remove applicable leachable contaminant concentrations. The material will be reclassified depending on other contaminants after onsite treatment.
6. **SPECIAL WASTE**
 - a. The Contractor shall engage the services of a qualified asbestos abatement contractor to dispose of asbestos containing materials (ACM) which are generated by soil excavation. The Contractor shall engage the services of a qualified asbestos abatement contractor. ACM components or source materials shall not be disturbed, removed, stockpiled, broken, or dismantled, except by the qualified asbestos abatement contractor. Handling and management of ACM shall be performed in accordance with Bureau of Waste Prevention regulations and policy. The Contractor shall notify the Owner's Representative immediately upon discovering suspected ACM materials. The Contractor will be responsible for obtaining any permits necessary for abatement of the ACM materials and will be conducted only after authorized by the Owner's Representative.

- b. The Contractor's attention is directed toward provisions of this Section and Section 01310 - Health & Safety so that soil management activities do not create a "condition of air pollution" under 310 CMR 7.00 and do not exceed Permissible Exposure Limits (PELs) under OSHA.

3.1 SOIL QUALITY MONITORING DURING EXCAVATION

- A. Classification of excavated soils for off-site reuse, recycling, treatment, and disposal shall be based on the Precharacterization Program conducted by the Owner and is summarized in the SIP. Material located within the representative zone of the precharacterization explorations shall be assumed similar in quality to the tested material and classification is based on the test results for the representative sample.
- B. The Contractor shall arrange for and conduct, as necessary, additional chemical testing required by the Contractor-proposed receiving facilities. The types and frequencies of testing shall be determined by the receiving facility and approved by the Owner's LSP. Testing shall be conducted under normal turn-around conditions (i.e., two-week turn-around-testing time). Base costs for additional testing shall be born by the Owner. Premium costs associated with turn-around-testing times less than two weeks shall be borne by the Contractor. The Contractor shall provide the equipment (e.g., excavators and/or drill rigs) to obtain the samples at no additional cost to the Owner. The Owner's LSP shall obtain the samples.
- C. The Contractor shall coordinate all Work with the Owner and Owner's Representative. The Owner's Representative will monitor excavation of soils. Soils will be monitored for visual and olfactory evidence of contamination based on observed discoloration, texture, and odor. In addition, excavated material may be monitored with a PID to screen for the presence of volatile organic compounds (VOCs). Screening will occur in the excavation area (ambient) and will be periodically performed in jar samples headspace. Ambient PID readings will be performed in the Work Zone and within 6 inches of the excavated material.
- D. Soils will remain as classified based on the Precharacterization Program unless field screening, field observations, or additional chemical testing indicate the soils to be different from the precharacterized classification. At the direction of the Owner's Representative, the Contractor shall segregate and temporarily stockpile excavated soils if they are observed to be heavily stained, exhibit unusual odors or contain other deleterious materials. The Contractor shall arrange with the Owner's Representative to have the soils tested and reclassified as necessary prior to off-site removal.
- E. For Group I soils, the Owner's LSP will provide the appropriate shipping record for the various receiving facilities chosen by the Contractor and approved by the Owner. Group I soils shall not contain more than 20 percent asphalt, brick, concrete, wood or metal, in accordance with 310 CMR 19.017.
- F. For Group II, III and V soils, the Owner's LSP will provide a Bill of Lading as required for the various receiving facilities chosen by the Contractor and approved by the Owner. The Contractor will be responsible for generation of Uniform Hazardous Waste Manifests. Group II, III and V soils shall not contain more than 20 percent asphalt, brick, concrete, wood or metal, in accordance with 310 CMR 19.017.
- G. For Group IV materials, the Contractor shall establish a truck shipping record log for off-site reuse or recycling that confirms quantity and destination. Off-site recycling, reuse and/or salvage shall be conducted in accordance with 310 CMR 19.017. .
- H. Contractor shall plan for the need to stockpile and test soil that appears different than precharacterized.

3.05 TRANSPORTATION OF EXCAVATED MATERIAL

- A. The Contractor will be responsible for handling, re-handling, loading, transporting, and legal off-site removal of all excavated soils and materials to approved facilities.
- B. No soils or materials shall be removed from the site without prior approval from the Owner.
- C. Excavated soils and materials generated from the TSCA area and designated for off-site disposition shall be loaded within the Exclusion Zone. All trucks leaving the Exclusion Zone shall be covered, and have wheels washed and cleaned of debris that might fall from the trucks during transport at the decontamination stations located in the Contamination Reduction Zone. Decontamination of trucks leaving the TSCA area shall be conducted in accordance with TSCA.
- D. Install, operate, maintain and remove a wheel wash at each location in the Contamination Reduction Zone where construction vehicles access and depart from the site. The location shall be proposed by the Contractor and approved by the Owner's Representative.
- E. Excavated soils and materials generated from the site and destined for off-site disposition shall be loaded within the site limits. All trucks leaving the site shall be covered, and have wheels washed and cleaned of debris that might fall from the trucks during transport.
- F. Install, operate, maintain and remove a wheel wash and equipment decontamination station at each location where construction vehicles access and depart from the site. These wheel wash stations are in addition to the decontamination stations that will be located in the Contamination Reduction Zone for decontaminating PCB contaminated equipment, tools and personnel. The location shall be proposed by the Contractor and approved by the Owner's Representative.
- G. The Contractor shall take measures to prevent debris from being spilled from trucks or tracked from the site onto local streets. The Contractor shall sweep streets adjacent to the site as necessary or as directed by the Owner's Representative. For pricing assume street sweeping will be conducted daily during the remediation and earthwork activities.
- H. Some Contractor-proposed receiving facilities may conduct quality assurance/quality control (QA/QC) chemical testing of soils upon arrival at the receiving facility. Although Haley & Aldrich, Inc. considers the results of the chemical analytical data obtained during the precharacterization program representative of the soil to be excavated, QA/QC chemical testing results conducted by the receiving facility may differ from the precharacterization results obtained by Haley & Aldrich due to the heterogeneous nature of urban fill and naturally-deposited soils. Should the receiving facility's QA/QC chemical testing results differ from Haley & Aldrich, Inc.'s precharacterization results and exceed the receiving facility's acceptance criteria, the receiving facility may reject the material.

3.06 DECONTAMINATION STATIONS

- A. Construct decontamination stations at locations identified by the Contractor and approved by the Owner's Representative in accordance with the Contractor's Submittal.

- B. Although not anticipated, decontaminate equipment and tools used to excavate site soils with PCB concentrations greater than or equal to 50 mg/kg in accordance with TSCA Subpart S.
- C. Decontaminate equipment and tools, and personnel used to excavate site soils with PCB concentrations greater than 1 ppm and less than 50 ppm in accordance with TSCA 40 CFR 1 §761.79.
- D. Personnel and non-disposable PPE shall be decontaminated in accordance with the approved Contractor's H&SP prepared by the Contractor in accordance with Section 318000 - Environmental Health & Safety.
- E. Collect all liquids and other materials (i.e. PPE, etc.) generated as part of the TSCA decontamination process and handle, store, and dispose of separately from other remediation wastes generated on site. Each waste stream shall be stored and disposed of separately, unless otherwise authorized by the Owner's Representative in writing.
- F. Management of Decontamination Fluids
 - 1. Collect all excess liquids generated as part of the decontamination process, if any in 55-gallon drums; and handle, store, and transport for legal off-site disposal.
 - 2. The Owner/Engineer may collect a sample of the collected decontamination fluid to evaluate the chemical characteristics for off-site disposal. For pricing purposes, assume the decontamination fluid is not a hazardous waste.

3.07 CONTINGENCIES

- A. If potentially hazardous conditions develop during the course of the work, the work in that specific area shall be terminated until the hazardous condition has been addressed to the Owner's satisfaction. Potentially hazardous conditions include, but are not limited to, buried containers, tanks, or drums.
- B. The removal of buried tanks, containers, or drums shall be performed in accordance with the requirements of 520 CMR 9.00, Tanks and Containers.
- C. In the event that buried containers, drums or tanks are encountered or if a release of oil or potentially hazardous materials has occurred, the Contractor shall notify the Owner immediately. The Contractor shall secure the area to prevent health risks to workers or the public and releases into the environment. The sources of the event causing the material to be considered suspect will be evaluated by the Owner. The Owner will notify DEP Incident Response within the required reporting time period (DEP Emergency Notification 978-661-7681 or 617-292-5500) as required. The Contractor shall obtain permission for removal of buried storage tanks.
- D. The impact on the Work should be evaluated and, if necessary, the Contractor's Health and Safety Program should be revised in response to the unforeseen conditions.

END OF SECTION

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